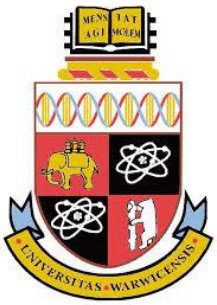

Promoting Metacognition of Reading Strategies in a Higher Education Context in Pakistan

by

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Abbreviations

AR	Action Research
UoK	University of Karachi
TAP	Think Aloud Protocol
TELS HEP	Transforming English Language Skills in Higher Education Programme
SEM	Strategy Evaluation Matrix
WELT	University of Warwick English Language Test
RC	Regulatory Checklist
SL	Strategy Log

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Declaration

I confirm that this thesis is my own work and that it has not been submitted elsewhere for a degree or professional qualification.

Bushra Ahmed Khurram

Abstract

To develop reading skills of students, teachers have been advised to provide metacognitive reading strategy instruction by researchers. However, previous research has provided limited understanding of how teachers could foster metacognition of reading strategies in a 'real' classroom setting. Moreover, previous research tended to focus on the impact of metacognitive reading strategy instruction on students' reading ability and has offered only a partial view of the students' experience of such instruction. Studies facilitating metacognitive reading strategy instruction in an ESL setting are also rare. This action research study provides a detailed data-led understanding of how metacognition of reading strategies could be promoted in university level ESL students in Pakistan. It also explores qualitatively the impact of the instruction on students' awareness, use and regulation of the reading strategies introduced.

Data was collected through interviews, learner diaries, think aloud protocols, end of class feedback, researcher journal, note-taking, questionnaire and reading test in two action research cycles over the 2013 academic year. The findings revealed that providing explicit instruction and opportunities for collaborative discussion about strategy use as well as promoting students' interest in reading helped raise students' metacognition of reading strategies. The findings also suggest that metacognition and motivation worked together to interact with each other during the lessons, paving the way for raised student interest, awareness, use and regulation of the reading strategies introduced.

The study supports, reinforces and extends findings in metacognitive reading strategy instruction research. It also makes a theoretical contribution through highlighting that the metacognitive knowledge of self and the metacognitive experiences of task performance could be affectively charged. The study outcomes are useful for understanding the process of metacognitive reading strategy instruction in an ESL setting and offer practical insights of value to professional involved in teaching reading skills to university level students.

Chapter One

Introduction

Recent decades have seen extensive research on reading (Baker & Beall 2009). The growing attention of research into different aspects of reading seems warranted since in the current knowledge-based world reading is regarded as critical to academic, economic and social success (Van den Broek et al. 2007). Reading effectively for students is particularly important because 'so much of information that students need is in the multiple texts they read' (Sheorey & Mokhtari 2008:1). This implies that students must learn to read strategically. Indeed, research indicates that 'there is strong interface between one's ability to read strategically and one's ability to excel academically' (Mokhtari et al. 2008: 46).

Reading research indicates that researchers have devoted considerable time and effort to figuring out how best to enable students to become strategic readers (Alexander & Jetton 2000). A number of studies have been conducted in this regard. These studies indicate that students could be helped to become strategic readers by understanding how to use reading strategies to aid comprehension (Paris et al. 1983). However, research also points out that it is not enough to teach students reading strategies (Baker & Brown 1984a). Students must also be taught to 'regulate' or monitor the reading strategies they use to ensure success in reading comprehension (Baker & Brown 1984a; Griffith & Ryan 2005). In other words, comprehension instruction should foster metacognition in students (Baker 2002). What is noteworthy, however, is that metacognition should not be regarded 'as a final objective for curriculum or instruction' (Mokhtari et al. 2008: 57) since it is 'an intermediate step to proficiency' (Paris & Winograd 1990: 22). Instead, it should be regarded as an opportunity to

'provide students with knowledge and confidence that *enables* them to manage their own learning and *empowers* them to be inquisitive and zealous in their pursuits' (Paris & Winograd 1990: 22, emphasis in original). It is this approach towards metacognition that this action research (henceforth, AR) study takes.

This chapter aims to introduce my AR study. It first presents my motivation for researching within the area of metacognition and reading strategies, and then introduces the purpose of the study. The chapter concludes by mapping out the structure of this thesis.

1.1 Rationale

This research was prompted by my personal interest in the teaching of reading. This interest has a strong relevance to my experience of teaching reading at the University of Karachi (henceforth, UoK), the research site of my investigation. In this section, I discuss some of the reasons that motivated me to undertake this AR study.

I started teaching at the UoK in January 2004 with the beginning of a new academic year. Prior to the start of the academic year, I was handed the coursebook for the Compulsory English Course as it was one of the courses I was expected to teach to students of various departments (see Section 2.2.2 for details regarding management and organization of English Language Teaching in the UoK). One of the features of the coursebook that attracted my attention was that it had a fairly heavy emphasis on the teaching of reading skills. However, the reading tasks given in the prescribed textbook did not tap the higher order thinking or reading skills of my students, as most of them required students to provide answers to factual level questions. This made me uneasy, and I began to develop a few inferential, applicative and evaluative questions for the given texts using Bloom's (1956) taxonomy. I noticed during the lessons that

most of the students liked answering such questions. However, I felt that the lessons did not empower students to manage their own reading. This deepened in me the desire to understand how I could help students become efficient autonomous readers.

My quest took me to the literature on reading strategies. I found that there is consensus in the literature that skilled, independent readers are strategic readers who use a variety of reading strategies to comprehend text (Pressley 2002; Sheorey & Mokhtari 2008). Intrigued by the construct of reading strategies, I tried to gain an understanding about the use of strategies by a skilled reader in my context through a small-scale qualitative study. Using think aloud protocol (henceforth, TAP) and interview, this study investigated the reading strategies of a good L2 reader of English who was studying in my university. The findings of the study revealed that this good reader of English used a number of strategies to read a text that were quite similar to the reading strategies that other studies reported (e.g. Block 1986 and 1992; Young & Oxford 1997; Barnett 1988; Carrell 1989). I also found that this good reader had been an avid reader since early childhood due to her father's influence who steered her interest in reading through discussions on books and reading processes (Khurram 2009a).

This study led me to wonder how I could promote reading skills in those students who come from families and schools where reading is not considered as important (see Section 2.1.5). How could I teach reading strategies effectively to them? These and other questions directed me to explore how reading instruction is delivered by teachers of other public sectors universities of Pakistan. Searching through the literature, I realised that there was hardly any research that reported on L2 reading instruction facilitated at university level in my country. In particular, I found no published paper that reported on teaching of reading strategies at the university level

in Pakistan. The only published paper related to reading instruction was that of Memon and Badger (2007) that documented an intervention made by one of the authors in the teaching of reading in University of Sindh, a public sector university in Pakistan. This lack of concentration of research in L2 reading instruction in my country directed my attention to further explore the field of reading. During my reading I came across the concept of metacognition and learnt that it plays a critical role in skilled reading (Griffith & Ruan 2005). I also learnt that metacognition helps the student take an active role in his/her own learning and performance rather than staying 'passive recipient of instructions and imposed experiences' (Paris & Winograd 1990: 18). This in turn fosters autonomy (Gavelek & Raphael 1985; Paris & Winograd 1990) and a sense of self in the student 'as an active cognitive agent' (Flavell 1987: 26). Most importantly, I learnt that the research has concluded that reading instruction that focuses on promoting metacognition of reading strategies in students is most effective with older students (Baker 2008a).

This developed my interest in providing metacognitive reading strategy instruction to my university level students. Initially, I started to introduce a few reading strategies to different groups of students during teaching the Compulsory English Course around 2008. In 2010 I taught reading strategies to a group of students as part of an AR study that was designed to increase learner involvement in a large reading class (forthcoming, Khurram 2016). The findings of this study revealed that the lessons made most of the students aware of the reading strategies taught during the study (ibid.). This made me feel that exploring this path was worthwhile. Given the fact that I was about to start my PhD, I decided that I could provide metacognitive reading strategy instruction to a group of students using an experimental design to see if such an instruction help improve students' metacognitive awareness, use and regulation of

reading strategies. However, when I started my PhD at the University of Warwick and started reading widely I realized that I needed to understand *how* I could promote metacognition of reading strategies in Pakistani university level students since such an instruction is 'new' to me and my context (Edge & Mann 2013). This realization was partially rooted in my developing understanding that a teaching methodology parachuted in from elsewhere could be problematic since it does not draw on local knowledge (Holliday 1994). Given that my research questions now revolved around 'how' rather than 'how many' (Silverman 2010:11), I decided that a qualitative approach would offer a better fit and purchase for my purpose.

What further cemented my decision that I would not use experimental design for my study was my realization that I am interested in teacher research engagement (Nunan 1993; Borg 2010; Ellis 2010) since it is what 'teachers and learners do in a classroom that determines what an educational change will achieve in any setting' (Wedell 2009: 11). As I reflected on how I might carry out my study, the potential of AR to provide a suitable methodological framework for my PhD study was too compelling to ignore. To some extent, it seemed a natural choice since AR allows for an intervention, possibility of change in the participants and the educational settings, and enables theorisation anchored in specific settings. In the words of Cohen et al. (2000: 226-7), AR offers the use of 'a small-scale intervention in the functioning of the real world and a close examination of the effects of such an intervention.' It also seemed to me that AR was relevant for practitioners like me who wanted to 'understand some aspect of a professional practice as a means of bringing about improvement' (Richards 2003:24) and to 'generate new knowledge' (McNiff & Whitehead 2012: 14). Moreover, I thought that AR would allow me to integrate theory on promoting metacognition of reading strategies with practice in the classroom (Crookes 1993) as

it ‘seeks to bring together action and reflection, theory and practice’ (Reason & Bradbury 2006:1).

1.2 Purpose of the study

This AR study investigates how metacognition of reading strategies could be promoted in university level ESL students in Pakistan. In addition, it investigates the outcome of the intervention: whether or not it brings about any change in students' metacognitive awareness, use and metacognitive regulation of reading strategies. More specifically, this study explores the following research questions:

1. How can metacognition of reading strategies be promoted in university level ESL students in Pakistan?

2. What changes, if any, does metacognitive instruction have on students’ awareness of the reading strategies introduced during the study?

3. What changes, if any, does metacognitive instruction have on students’ use of the reading strategies introduced during the study?

4. What changes, if any, does metacognitive instruction have on students’ regulation of the reading strategies introduced during the study?

1.3 Structure of the thesis

In this first chapter, I have presented the origins and growth of my interest in undertaking this current study and introduced the purpose of the study. Chapter 2 outlines the context of the study and presents a brief outline of the institution in which the study took place. Chapter 3 reviews the literature on metacognition and reading

strategies that shaped this research. Chapter 4 describes the research tradition in which this study is positioned. It outlines the AR framework that formed the basis of this study and justifies qualitative AR as the most appropriate approach for this study. It also presents the data collection methods and the process of data analysis, as well as engages with issues related to quality and ethics relevant to this study. Finally, Chapter 4 addresses some limitations of the current study. Chapters 5 and 6 form the backbone of the study and focus on the analysis of the data derived from the two AR cycles that I undertook. In turn, Chapter 7 presents a discussion around my research questions, my literature review, and my data. The concluding chapter, Chapter 8, provides a summary of the pedagogical, theoretical and methodological contributions made by this research. The chapter also suggests implications that can be drawn from the findings and areas for further research. The chapter concludes by wrapping up the research with my personal reflections on the research experience.

Chapter Two

The Context of the Study

This chapter describes the research context in Pakistan so that the transferability of findings and the credibility of my research can acquire a deeper meaning for researchers and readers (Bryman 2004; Schostak 2006; Gudmundsdottir & Brock-Utne 2010; Tracy 2010). It begins by looking at the linguistic landscape of Pakistan and the status of English in it. It next outlines the status of reading in Pakistan and how it is taught there especially in higher education. The chapter concludes with a brief outline of the institution in which the AR framework on which this thesis is based took place.

2.1 Country context: Pakistan

2.1.1 Basic facts about the linguistic scene of Pakistan

Pakistan is a multilingual and multicultural society with a population of 176 million (Government of Pakistan 2011). The linguistic map of Pakistan defies simple description as it has 72 living languages (Lewis 2009). Each province of Pakistan has at least one dominant language and a number of minority languages (Shamim 2011). The five major languages of Pakistan as per percentage of speakers are: Punjabi (48.2%), Pashto (13.2%), Sindhi (11.8%), Siraiki (9.5%), and Balochi 3% (Rahman 1997: 145). The national language of Pakistan is Urdu and it is the mother tongue of 7.57% population of Pakistan (Rahman 2010). Urdu is also the lingua franca of Pakistan (Shamim 2008). It is used by people in both urban and rural contexts. The speakers of other regional or indigenous languages of Pakistan use Urdu in their

interactions in addition to their language. English is the official language of Pakistan and is the language of government, the military and higher education (Coleman 2012).

2.1.2 Position and status of English in Pakistan

In Pakistan, English is generally considered to be a second language (Mashori 2010). However, as argued by Rahman (2004) it is a second language for highly educated affluent Pakistanis and a foreign language for all educated others. Since English is not really the second language for most, but a third or a fourth language it is termed as an additional language by Mahboob (2013). Even though it could be called an additional language the fact remains that English is considered a prestigious language in Pakistan. One of the reasons for its prestige and status lies in its historical association with the elite and proto-elite social groups (Haque 1983; Rahman 2002). English is also viewed as the language of power in Pakistan in comparison to Urdu (national language) and other regional languages (Rassool & Mansoor 2009) and this could be due to Pakistan's language-in-education policy that gives it strong support (Khurram 2009b). Moreover, due to the increased usage of English in the global market and its status as a 'world language' it is considered to be the de facto language of development and economic prosperity in Pakistan (see Jalal 2004), as in other developing countries (Coleman 2010). Further, due to its promising position in the world and huge demand in the employment market of Pakistan (Mansoor et al. 2005), the younger generation of Pakistan have a strong desire to develop their proficiency in it. This is evident from Rahman's (1999) study that shows that students from all school types including the religious schools are keen to learn English. Similarly, Pakistani students in tertiary education appear to have an overwhelming desire to learn English as is evident from the case studies of Mansoor (2005) and Khurram (2006).

2.1.3 Planning for English language education in Pakistan

Historically speaking, the teaching of English to the masses has always remained on the agenda of the successive elected governments of Pakistan (Shamim 2011). One of the reasons for this is that comprehension and use of English is equated with the economic prosperity of Pakistan. This is seen in the political and economic discourse of the government officials of Pakistan. For instance, Jalal (2004: 24), a former education minister in one of his speeches said:

> When we subscribe to the experts' view that the economic future of Pakistan is linked with the expansion of information technology, it means that we are recognising the need for making the comprehension and use of English as widespread as possible. This is now an urgent public requirement, and the government takes it as its duty to fulfil this requirement.

This and similar views have resulted in the decision of the government to teach English as a compulsory subject at university level (Mansoor 2005). In addition, it resulted in the government's recent decision to teach English as a subject from grade 1 (Government of Pakistan 2009). However, as happened in the past, these decisions have not been implemented due to the lack of a coherent implementation plan, limited available resources and lack of teachers' ability to teach English effectively (Shamim 2008).

2.1.4 English language and tertiary education in Pakistan

English language is taught as a compulsory subject for two years to graduate students at the public and private sector universities of Pakistan as a key part of the government's policy (Malik 1996; Mansoor 2005). In addition, in Pakistan, there is an expectation that at university English is the language in which all content is taught in

all faculties (Muhammad 2013). Indeed, a recently published white paper (2007) states 'for all university education, English should be the medium of instruction.' However, there has been very little discussion on how this policy is implemented at the university level in Pakistan (Nawab 2012). In reality, this policy might not be that easy to implement for two major reasons. First, students who have low proficiency in English could find it challenging to adjust to the lessons facilitated entirely in English (Imran & Wyatt 2015). Second, Pakistan lacks trained teachers who are proficient in English language to implement this policy (Behlol & Anwar 2011; Shamim 2008). It is probably because of these reasons some teachers either avoid using English during the lessons as much as they can (Khurram 2006) or code-switch while teaching English (Gulzar & Qadir 2010).

With respect to the students, the majority studying at public sector universities in Pakistan mainly belong to middle and lower middle class (Khurram 2006). These students have limited exposure and opportunities for using English outside the classroom since the language of communication in the learner's home and community is not English. At the time of admission in the university, the learners are supposed to be proficient in English having studied English for several years in schools and colleges. However, a majority of learners have low levels of proficiency in English when they arrive at the university (Memon & Badger 2007). This could be because teachers of government schools and colleges teach English in a manner that encourages rote learning rather than development of language skills. For instance, as noted by Shamim (2008: 240) rather than helping students develop their writing skills, teachers of government schools either 'dictated a set of essays and letters or wrote them on the blackboard for the students to copy in their notebooks… to learn by heart and reproduce them in the examination' (for details regarding how reading is taught in

public sector schools and colleges in Pakistan see Section 2.1.5). What seems important to mention here is that students are generally keen to learn English as discussed in Section 2.1.2 and do respond positively towards an innovation in teaching practices that keep students interest and needs at the heart of the learning process (forthcoming, Khurram 2016).

2.1.5 Status of reading and teaching of reading in Pakistan

As discussed earlier, the government, the main stakeholder of education in Pakistan, subscribes to the view that learning English is unequivocally linked to prosperity and therefore students' proficiency in it should be promoted. However, it seems the government lacks the political will to promote reading in younger generations of Pakistanis (Mustafa 2010). One of the reasons for this could be that government sees no political gain in promoting it. This is apparent from the fact that the government is aware that 'the reading habits of society are declining sharply due to the non-existence of proper library facilities' (Pakistan Ministry of Education 2000, 11.1.4 cited in Khalid 2001: 88) and that 'school libraries, despite their fundamental impact on formal education, are the worst in terms of their collections, numbers and organisation. For instance, more than 80 percent of schools are without libraries and only 30 libraries have qualified staff' (Pakistan Ministry of Education 2000, 11.1.3 cited in Khalid 2001: 88). However, concerted and sustained efforts are still not made by the government to promote reading skills among the younger generation of Pakistan as indicated by Mustafa (2010: 7):

> The government which should take the initiative and play the key role in setting up public libraries has been shying away from this responsibility because it feels it derives no political dividends from a policy aimed at making citizens educated.

Thus, one can see only a handful of local libraries in the cities of Pakistan. These libraries mostly do not have a huge budget (Mahmood et al. 2006). Consequently, they do not keep the latest books published by the local or foreign publishers for people of various age groups. Moreover, these libraries do not have computers for people to access and read material available on the net due to financial constrains (ibid.). Thus, the younger generation do not get greater access to books and other reading materials which could develop their reading (Krashen 2004).

On the other hand, it appears that teachers, especially those of public sector schools, and parents have probably not worked out the place of reading in today's global market. That is, it seems that they are not aware that the citizens of the current knowledge-based world need to be skilled readers so as to be successful in their professional and academic careers (Grabe & Stoller 2002; Grabe 2009). This is apparent from the fact that they do not create an interest in children to read (Mustafa 2012). In fact, the literature indicates that in the past the teachers and parents discouraged children to study anything other than the textbooks (Shafique 2011). One of the reasons for this could be that the immediate priority of most of the parents in Pakistan is to make certain that their children do well in their courses by focusing only on the knowledge ‘given’ to them in the classes to pass the necessary exams. In this regard, Khan (2014) reported that most parents think that reading books would divert their children from getting high grades in examinations. Similarly, the immediate priority of most of the schools is to make certain that students gain high grades in exams (Khan 2006), including that of reading comprehension. The exam-centeredness of the schools in Pakistan is not surprising since reading research does point out that 'schools are sociocultural institutions, and the learning that occurs there concerns the transmission of content valued by society' (Alexander & Jetton 2000: 288).

To elaborate, the majority of teachers of reading at primary and secondary level public sector schools provide students with 'very little or no opportunities to read on their own in English language classrooms' (Muhammad 2013: 1404). In more detail, most of the teachers ask students to take turns to read each and every word carefully and aloud in the class. In addition, teachers also ask students to make it their business to know the meaning of all unknown words (Shamim 2008). Most of the teachers achieve this target by providing the meaning of difficult words themselves and also by translating and explaining difficult paragraphs to students during the read aloud session (Khan 1995).

Moreover, most of the reading tasks that students perform in public sector schools and colleges do not tap their higher order thinking or reading skills as the questions in them operate at factual or literal level (Khan 1995). In the examination students usually produce the answers of the comprehension questions from memory (Khan 2011). This is the practice students follow even in the state-run matriculation and intermediate examination. Thus, most of the students, especially those in public sector institutions, do not master reading skills while in school or college.

The pedagogical practices used for teaching reading at tertiary level in Pakistan also resemble those used at primary and secondary level. That is, the preferred way of teaching reading for teachers of public sector universities in Pakistan is 'to read the text aloud and explain ideas and difficult words in English or in English and a local language' (Muhammad 2013: 1411). Consequently, students at the university level as well do not acquire skills to become strategic autonomous readers. This is despite the fact that some teachers truly want to teach reading effectively (forthcoming, Khurram 2016). However, it appears that they are unable to do so probably due to having limited or no training in teaching of reading. To elaborate, the majority of teachers of

public sector universities of Pakistan do not have formal qualifications or training in English language teaching (Shamim & Tribble 2005). The literature points out that even in countries in which teachers need certification to be a teacher, unlike Pakistan, helping students to learn reading through discussion and other strategies is not easy:

> Becoming a discussion facilitator rather than being an information provider is perhaps as much of a challenge to the teacher as becoming a meaning maker is to the students (Baker & Beall 2009: 384).

2.2 Institutional context: University of Karachi

As mentioned before, the research site for this study is my home university, University of Karachi (UoK), which is situated in Karachi and is 12 Km away from the city center.

Figure 2.1 Location of Karachi

2.2.1 Background

The UoK is a public sector university. It was established by an act of the Pakistan Parliament in June, 1951. The present campus of the university, to which the university shifted in 1960, is spread over 1200 acres of land (University of Karachi 2015). The UoK is the biggest university of Pakistan. The impact of the university's work and research spreads far and wide since all the colleges of the city are affiliated with it (ibid.).

Teaching at the UoK is conducted within five faculties: Faculty of Arts, Faculty of Science, Faculty of Islamic Studies, Faculty of Management & Administrative Sciences and Faculty of Pharmacy. There are 53 departments and 20 research institutes/centres in the University (ibid.). The faculty of the UoK comprises of more than 800 teachers. The non-teaching staff that helps with administrative and other matters comprises of more than 2500 people. Currently, over 24,000 students, including students from foreign countries, are studying at the university. The students comprise both males and females (ibid.).

In UoK the classrooms are not well-resourced. The majority of departments have no OHP or multimedia facilities. Teachers, therefore, use the blackboard and handouts in the class to facilitate learning (as I did during the study). In addition, classes do not have a generator. Hence, during a power breakdown the classes mostly become dark and hot. The teachers, however, could at times address this challenge by taking students out to a nearest grassy patch if it is not wet as I did several times during this study (see Pictures 2.1 and 2.2).

Picture 2.1 Class taken in the garden during power breakdown

Picture 2.2 Class taken in the garden during power breakdown

2.2.2 Management and organization of English language teaching

In UoK, English language is taught at the undergraduate level to students of 53 disciplines in their first year of studies for one semester. The undergraduate program is managed by the English Department. Till December 2012 the permanent faculty of the English department designed curricula and teachers were allowed to select their own teaching materials for translating curriculum into practice. However, in January 2013 the English teaching faculty has been given a student's and a teacher's manual titled 'English for Academic Purposes' (Figure 2.2, p. 21) for teaching Compulsory English Course.

The Compulsory English Course is offered to the students of all disciplines for one-semester in the first year of their studies. The academic year at UoK consists of two semesters, each of approximately fourteen weeks. The teaching of English to the 53 disciplines is divided between the two semesters in the first year. That is, English classes are divided into two semesters so that 26 disciplines have the Compulsory English Course in the first semester and the remaining 27 have the course in the second semester in the first year. The Compulsory English Course is designed to be taught over a period of 40 hours. This is an accredited course, and based on the course students take an exam. In 2013 the English Compulsory Course was taught in the UoK through the materials developed for the module 'English for Academic Purposes' as mentioned earlier. This module is part of the program called ‘Transforming English Language Skills in Higher Education Programme’ (henceforth, TELS HEP).

The TELS HEP program was initiated in Pakistan in 2012 'to transform the way English is taught and used in university education' (English for Academic Purposes*:* Teacher’s Manual 2012: 1). The program is a 'collaboration between the British

Council and the Higher Education Commission with technical assistance provided by the Open University, United Kingdom' (ibid.). The program consists of three phases. In the first phase needs analysis of teaching and use of English in Higher Education in Pakistan was carried out. In the second phase modules were developed to 'enhance the development of (1) English for Academic Purposes, (2) English for employment purposes, (3) the professional development of lecturers teaching through the medium of English and (4) train Master Trainers to teach and disseminate the three other modules created' (ibid.). The first and the second phase of the program were completed between February and June 2012. In the third phase that started in January 2013, the pilot versions of the modules were rolled out in the universities and their impact was evaluated.

The materials for the module were authored by academics from 11 public sector universities of Pakistan together with three academics from the Open University UK in a series of 3 workshops in Islamabad (ibid). The materials were further refined through editing over a period of several months (ibid). Unfortunately, no publically available report exists on how the project of coursebook development started and became implemented. The evaluation of the impact of the pilot versions of the module has not been made public either. However, according to a colleague who was part of the project, the academics from Pakistan were selected by the academics from UK for the purpose of coursebook development. In more detail, academics from Pakistan were asked to develop a sample unit for teaching Compulsory English Course. This was reviewed by the academics from UK who on the basis of the quality of the unit decided who will be part of the coursework development team.

In this study, the texts and the tasks from the student's manual of the module 'English for Academic Purposes' were used for teaching and research purposes as required by

UoK (for details see Chapters 5 and 6). The student's manual consists of 12 units. The module emphasizes teaching of speaking and writing since students showed the desire to develop their speaking skills during the needs analysis phase of the study (ibid.). However, reading also forms a major part of teaching in the module. As per the lesson plans given in the teacher's manual, the students receive weekly instruction on reading during the course. During teaching, the teachers are 'not expected to follow the materials mechanically' (English for Academic Purposes*:* Teacher's Manual 2012: 4). Rather, they are 'invited' to 'adapt them to suit the reality of their class' (ibid). This provides teachers autonomy to take into account students' emerging needs. Thus, they could be responsive during the teaching-learning process as I did during the study (for details regarding how I adapted the materials according to the needs of my students see Chapters 5 and 6).

For the development of reading skills the student's manual contains 13 reading texts in all. A large number of these texts are selected from the newspapers published in English in Pakistan. Going into detail, six of the texts in the student's manual are taken from the leading Pakistani English newspaper 'DAWN', one from the newspaper 'Nation', one from the newspaper 'Pakistan Observer'. Texts are also taken from other sources for the manual. The manual indicates that one of the texts published in it is taken from the Open University website and another is actually the needs analysis report of the project. Moreover, one of the texts is 'prepared' by a member of the materials development team and another is sourced as 'personal communication'. The source of one of the texts is not mentioned in the student's manual.

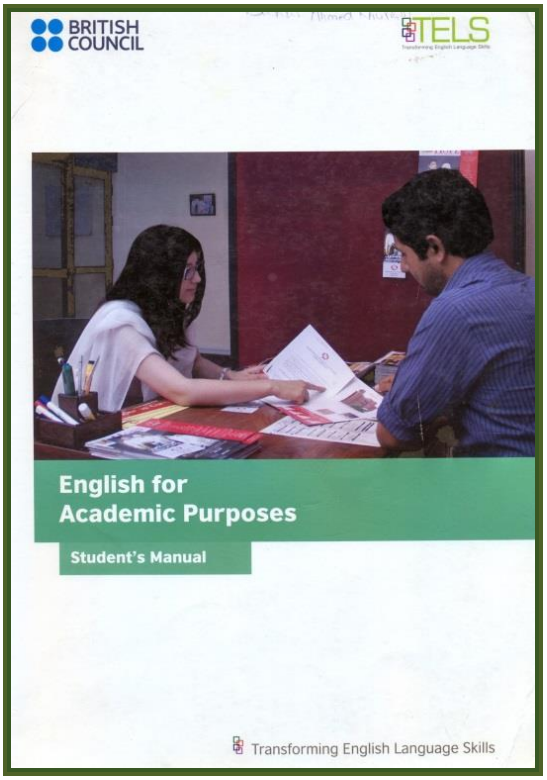


Figure 2.2 Student's manual of English for Academic Purposes

The texts given in the student's manual are of different types. According to the module map given in the manual the texts fall into the following text types: descriptive, factual, report, discussion, compare and contrast, argumentative and essay. The texts given in the manual for the development of reading skills have pre-designed tasks with them. These tasks are designed to provide students practice of the strategies of predicting, skimming, scanning and extracting the main idea. However, the given tasks do not aim to raise students' metacognitive knowledge i.e. declarative, procedural and conditional knowledge associated with using these strategies (for details regarding these types of knowledge see Section 3.2.4.1). Moreover, they do not help students regulate the use of these strategies which is an inspiration of this study. Students are supposed to carry out these tasks during the semester to become able to perform them well in the final term exam paper.

Assessment is an important part of the Compulsory English Course. The assessment carries a total of 100 marks. Out of these, 50 marks are allocated to the standardized final term exam that is developed by the coordinator of the Compulsory English Course. The other 50 marks are for the assignments that are designed by the teachers for their respective groups. This gives teachers autonomy to design assignments keeping in view the needs of their groups. The final term exam assesses the reading, writing and grammar skills of students. Speaking and listening skills are not assessed in any kind of exam.

This chapter described the educational and institutional context of the study. In the next chapter I will review the literature and provide the conceptual background of the study.

Chapter Three

Literature Review

Ask skilled readers what they do before, during and after reading and they usually report that they reflect on their own cognitive processes, plan their actions, monitor and evaluate their progress, and test and revise their strategies for reading (Baker 2002). In other words, they bring metacognition-in-action to the act of reading (Baker 2008a). Metacognitive acts promote reading comprehension as they guide and coordinate thinking (Baker & Brown 1984a). The literature shows that metacognition can be fostered (Haller et al. 1988; Baker & Beall 2009). With this in mind, this chapter discusses the literature that shaped the current research. It begins with a brief discussion on what reading is and presents the definition of reading strategies. The characteristics of skilled readers and the approaches of second language reading are then described. This is followed by an overview and definition of the concept of metacognition. The chapter then provides explanation of the components of metacognition in relation to reading and relates them to the present study. Following that, it reviews the key studies on metacognition and reading and suggests the gaps that are potentially filled by this research. The final part of this chapter describes the key practices of metacognitive reading strategies instruction, which have informed this study.

3.1 Reading

3.1.1 Defining reading comprehension

Many people think of reading as a simple process that involves decoding words on a page (Forrest-Pressley & Waller 1984; Schoenbach et al. 1999; Wilhelm 2001). Word recognition is no doubt ‘the foundation of the reading process’ (Gough 1984: 225) as reading is 'first and foremost a linguistic processing activity' (Grabe 2010: 91). But reading is more than simply a decoding process (Teplin 2008). It is a complex problem solving process in which readers actively construct meaning by making sense of text (Blachowicz & Ogle 2008). This meaning construction of text is based on cultural and experiential background of the reader, purpose for reading and overall setting (Paris et al. 1983; Block & Pressley 2003). Indeed, Forrest-Pressley and Waller (1984) argue that reading involves decoding, comprehension, reading strategies and monitoring and control of comprehension. Duffy (2009: 18-19) indicates that reading comprehension is 'proactive', 'tentative', 'personal', 'transactive', 'thoughtful', 'imagistic', 'inferential' and 'reflective'. In the literature, reading comprehension is considered a 'strategic process' and has 'usually been described in terms of reading strategies' (Block & Duffy 2008: 21). Therefore, before going further, it seems fitting to define the term ‘reading strategies’.

3.1.2 Definition of reading strategies

The term 'reading strategies' became popular in the 1970s to signify 'the cognitive aspects of information processing' (Afflerbach et al. 2008a: 365). Generally, reading strategies are defined as the comprehension processes that readers use in order to decode text, understand words and construct meanings of text (Rycik & Irvin 2005). In other words, reading strategies are basically comprehension strategies (Sheorey &

Mokhtair 2008). Garner (1987) refers to a 'reading strategy' as an action (or a series of actions) that is employed in order to construct meaning. Similarly, Pritchard (1990: 275) defines a reading strategy as 'a deliberate action that readers take voluntarily to develop an understanding of what they read'. More specifically, it is said that reading strategies indicate 'how readers conceive a task, what textual cues they attend to, how they make sense of what they read, and what they do when they do not understand' (Block 1986: 465). Therefore, strategies reveal a reader's resources for understanding (Langer 1982). Pressley (2002) described the text comprehension process as one consisting of before reading strategies, during reading strategies and after reading strategies. Before reading strategies include strategies such as setting purpose and plan for reading, skimming, predicting and activating prior knowledge. During reading strategies include strategies such as reading or rereading, taking notes and guessing meaning of words. Examples of after reading strategies include summarizing mentally or on paper and discussing the text with others.

Reading strategies are generally considered to be effortful, conscious and goal-directed (Afflerbach et al. 2008a). Moreover, reading strategies are developmental in nature (Afflerbach & Cho 2009). Therefore, they can differ in the attention they demand of readers. For instance, they can be near automatic and can 'operate at the edge of consciousness' provided the text is easy or the reader has practiced them (Afflerbach & Cho 2009: 69). Alternatively, they can be 'resource consuming' and may demand the reader's full attention for successful implementation especially on the initial use of them by the reader (Afflerbach & Cho 2009: 70). What is noteworthy is that the definition of reading strategies does not automatically entail positive and useful actions (Afflerbach et al. 2008b). To be successful and strategic, a reader needs to have an appropriate goal and choose an appropriate means to achieve that goal. For

instance, if a reader wants to know all the details in a text, he/she cannot just skim the text since the action of skimming is indeed strategic, but it is an inappropriate means of achieving the goal.

In contrast to reading strategies, reading skills are the 'procedures that have been routinized' (Alexander et al. 1998: 135). They are automatic information-processing techniques that contribute to comprehension (Rycik & Irvin 2005). In other words, reading skills are well-practiced and do not require reader's conscious decision making as they are used out of practice (Paris et al. 1991). However, just like reading strategies, reading skills are not always successful. Afflerbach et al. (2008a: 370) present a useful contrast between strategies and skills by stating that 'reading skills are motivated by goals of fluency, effortlessness and accuracy' whereas 'reading strategies are motivated by control, good decision making, and adaptability'. Skills and strategies are considered interchangeable as ‘an emerging skill can become a strategy when it is used intentionally’ (Paris et al. 1991: 611). Paris et al. (ibid.) indicate that ‘strategies are more efficient and developmentally advanced when they become generated and applied as skills’. Moreover, strategies can be 'skills under consideration' (Paris et al. 1983: 295) ‘depending on the readers' awareness, control, intention, and the specific reading situation' (Afflerbach et al. 2008b: 17). Therefore, according to this point of view, with time and practice the reading strategies move from being non-automatic to automatic and hence become reading skills.

Historically and theoretically speaking, skills 'were rooted in behavioral descriptions of learning through practice' whereas strategies 'were rooted in constructive, self-controlled theories of information processing' (Afflerbach et al. 2008a: 366). However, it is important to note that the terms 'skill' and 'strategy' have been used inconsistently in the literature. For instance, as pointed out by Afflerbach et al.

(2008a: 364) the terms 'skill' and 'strategy' have been used as synonyms or to describe complementary relations (e.g. strategies support skills) or as a notion of developmental progression (e.g. 'first phonics skills then the comprehension strategies').

In the light of the definitions of reading strategies and the concepts discussed above, for the purpose of this research I am defining reading strategies *as specific actions, mental and/or physical, consciously employed by the reader in order to achieve and adapt cognitive, metacognitive, affective and social goals and objectives during and through reading.*

3.1.3 Characteristics of skilled readers

There is consensus among reading researchers that many skilled reader characteristics are common in both L1 and L2 readers (Pang 2008). For instance, skilled readers in both L1 and L2 are distinguished from unskilled readers on the basis of their automaticity of word recognition, familiarity with text structure and topic, language proficiency and vocabulary size (ibid.). In addition, skilled readers are goal-oriented and 'combine their background knowledge with text cues to create meaning' (Brown et al. 1996: 19). Moreover, as mentioned in Chapter 1, skilled L1 and L2 readers utilize a number of reading strategies before, during, and after reading (Baker & Brown 1984a; Sheorey & Mokhtari 2008) and monitor and evaluate their understanding and performance (Brown et al. 1996; Baker & Beall 2009). In short, skilled readers engage in 'constructively responsive reading' (Pressley & Afflerbach 1995), a construct that has been recently elaborated by Pressley and Gaskins (2006: 99) as 'metacognitively competent reading'. In simpler terms, skilled L1 and L2 readers are strategic and metacognitive.

Reading research indicates that deliberate control, awareness and working toward a goal characterize the strategic reader (Paris et al. 1996). In other words, to be strategic, readers must bring metacognition (for definition see Section 3.2.2) into action since ‘it is through metacognition that strategies are selected and put to use’ (Nokes & Dole 2004: 166). In this regard, Paris et al. (1983: 295) state that ‘metacognition is at the core of strategic behavior'. Trabasso and Bouchard (2002: 186) also state that being strategic is ‘much more than knowing a strategy, being strategic calls for coordinating individual strategies, altering, adjusting, modifying, testing, and shifting tactics as is fitting until a reading comprehension problem has been solved’.

The literature also indicates that strategic readers must be willing to commit time and energy (Garner 1987) to using strategies through their own volition (Alexander & Judy 1988). Having the will to use strategies while reading is of paramount importance since there is abundant evidence in the literature that shows that individuals do not behave strategically even when they are aware of the need for it, since they lack the will to do so (Garner 1990). This is why Dole et al. (2009) argue, rightly in my view, that to be a strategic reader one has to be a motivated reader, since without motivation a reader will not put his/her knowledge of strategies into use. Paris et al. (1991) identify two components central to strategic reading: metacognitive knowledge about reading strategies and the motivation to use such strategies. In more detail, knowledge of strategies is usually not enough to promote student achievement. Students must have the motivation to use the strategies and to regulate their cognition (Paris et al. 1983). Guthrie and Wigfield (2000: 408) posit that becoming a skilled reader involves the attunement of motivational processes with cognitive and language processes in reading. This is so since motivational processes are considered to be the

foundation for coordinating cognitive goals and strategies in reading. In other words, the use of reading strategies during reading requires motivation on the part of a reader. For my study it implies that I should take measures to make students 'want to' use and regulate their use of reading strategies during reading if they do not have the will to do so.

3.1.4 Approaches to second language reading

Historically speaking, before the 1970s the discussions regarding the nature of reading in English as a second language was rooted in a conceptualization of reading prevalent in first language reading that viewed the reading process as passive and text-driven or bottom-up (Carrell 1998a; Singhal, 2005). This conceptualization of reading was termed a 'bottom-up' approach to reading (Garner 1987: 2); and it describes reading as a series of discrete stages, proceeding in a fixed order from incoming visual data to higher-level encoding (Stanovich 1980). In other words, it assumes that a reader constructs the author's intended meaning via recognizing the letters and words and try to build up 'a meaning for a text from the smallest textual units at the 'bottom' (letters and words) to larger and larger units at the 'top' (phrases, clauses, intersentential linkages)' (Carrell 1998a: 2). In this view of reading, problems of second language reading comprehension were considered fundamentally to be decoding problems (see, for example, Rivers 1968; Plaister 1968).

In the 1970s second language reading specialists (e.g. Clarke & Silberstein 1977; Widdowson 1978; Clarke 1979; Mackay & Mountford 1979) began to view reading as an active process and regarded the second language reader as an 'active information processor' in line with psycholinguistic model of reading that had earlier exerted a strong influence on views of first language reading (Goodman 1967, 1971; Smith

1971). Goodman (1971: 135) had described reading as a 'psycholinguistic guessing game,' in which the 'reader reconstructs … a message which has been encoded by a writer as a graphic display'. This theory of reading was related to ESL reading by Eskey (1973) and Saville-Troike (1973), among others. Eskey (1973), for instance, noted that the decoding view of reading was inadequate as it underestimated the contribution of the reader. In 1979 Coady elaborated on this psycholinguistic approach towards ESL reading and suggested that the ESL reader's background knowledge interacts with conceptual abilities and process strategies to produce comprehension. These conceptualization advanced the 'top-down' approach in second language reading (Steffensen et al. 1979; Carrell 1981, 1982; Johnson 1981, 1982; Hudson 1982). In the top-down approach of second language reading, the reader is viewed as an active participant in the reading process and it is assumed that 'a reader approaches a text with conceptualizations above the textual level already in operation and then works down to the text itself' (Hudson 2007: 33). In simpler terms, the top-down approach assumes that the reader is not text bound and does not necessarily read each word in the text. Rather, the reader samples words and strings of words to predict, infer and confirm meaning in relation to conceptually driven hypotheses (Goodman 1967).

Both bottom-up and top-down approaches to reading are now seen as naïve and simplistic (Hudson 2007). Rumelhart (1977) and Stanovich (1980), in particular, have pointed out the limitations of keeping top-down and bottom-up processes of reading separate. Moreover, Samuels and Kamil (1988) and Bernhardt (1991) have maintained that each approach described a different aspect of what reading involves and how reading occurs. Thus, the current approach in second language reading have recognized that reading requires both top-down and bottom-up processing functioning

interactively for an adequate understanding of second language reading and reading comprehension (e.g. Rumelhart 1977; Stanovich 1980; Sanford & Garrod 1981; Van Dijk & Kintsch 1983; Carrell 1988a, 1988b; Grabe, 1991). Put another way, reading theorists now recognize that 'both top-down and bottom-up processes are occurring either alternately or at the same time' (Singhal 2005: 20). This view of reading has come to be called the interactive approach of reading (Carrell et al. 1988). The interactive approach 'incorporate both top-down and bottom-up strategies' (Grabe 1998: 59). Bottom up strategies are those related to information at the sentence level and focus on identification of a word's meaning and grammatical category and on sentence structure (Aebersold & Field 1997). On the other hand, top-down reading strategies 'are those related to the reading passage as a whole or to large parts of the passage' (Barnett 1988: 150). They include activating background knowledge, predicting, skimming, scanning and reading with a purpose, amongst others.

Today, a number of researchers point to the importance of metacognition for appropriately applying the interactive approach of reading. For instance, Macaro and Erler (2008: 95) have noted that during reading the balance between bottom-up and top-down strategies 'needs to be arrived at through a metacognitive evaluation of the match between a number of variables including task requirements, text difficulty, and the learners' own L2 lexical knowledge' (Macaro & Erler 2008: 95). They further elaborate that 'the selection of strategies to support this 'balance of processes' needs to be orchestrated and monitored, via metacognition, for its effectiveness while reading' (ibid.).

3.2 Metacognition

3.2.1 Background

The concept of metacognition gained prominence in the 1970s with John Flavell who coined the term 'metacognition' in 1976 (Pintrich 2002). However, the construct of metacognition is not a new one. It is considered to be deeply rooted in the earliest conversations relating to thought. The conceptual genesis of metacognition can be traced back to the famous poet and philosopher, Simonides in the year 403 B.C (Dunlosky & Metcalfe 2009). Simonides introduced the idea of 'Introspectionism' or observing the thoughts in the brain while they are occurring (ibid.). Plato and Aristotle are also well known for their work on metacognition or learners thinking about their own thinking (Brown 1987). Afflerbach (2000: 87) indicates that both Plato and Aristotle 'encouraged colleagues to discuss the things they thought about'.

In the area of reading comprehension, theorizing germane to the topic of metacognitive processes predates ‘the coining of the term 'metacognition' by more than three quarters of a century’ (Baker and Beall 2009: 373). This can be seen in the work of researchers like Huey (1908) and Dewey (1910) who have mentioned in their work that reading involves planning, monitoring and evaluating activities (Baker & Brown 1984a). Baker and Beall (2009) indicate that the theorists whose contributions have influenced the development of the theory of metacognition in reading are: Jean Piaget and Lev Vygotsky.

In his work, Piaget (1953) emphasized the active role of a child in constructing understandings. His theory, referred to as 'cognitive constructivism' (Schcolnik et al. 2006), proposes that from birth to adulthood, the human mind actively constructs knowledge and understanding (Wadsworth 1971). To elaborate, Piaget proposes that

‘humans cannot be given information, which they immediately understand and use; instead, humans must construct their own knowledge’ (Powell & Kalina 2009: 242). According to Baker and Beall (2009: 378), constructivism forms the 'underlying premise in the study of metacognition' in reading. Unlike Piaget, Vygotsky’s (1978) social development theory, also called 'social constructivism' (Schcolnik et al. 2006) or sociocultural theory, proposes that human beings learn how to engage in cognitive tasks through talk or social interaction with more knowledgeable others (Baker 2008b). In these interactions, the expert mediates the novice’s activity by first taking the responsibility of regulating it. Gradually, the expert passes the responsibility to the novice till s/he can perform the task or solve the problem and regulate his/her own cognitive activities without the expert’s assistance. In sum, the underlying premise of the theory is that individuals develop the capacity for self-regulation through interaction with a more knowledgeable other, usually a parent, teacher or a more capable peer (William & Burden 1997). According to Vygotsky’s theory, ‘language plays a crucial role in this gradual transition from joint problem solving to independent problem solving or self-regulation’ (Ushioda 2014: 42).

Piaget’s and Vygotsky's theories have influenced a number of reading theorists who propose that the origin of metacognitive skills lie in the individual construction of knowledge as well as in expert-novice interactions. For instance, Paris and Winograd (1990: 21) hold the view that metacognition 'can be promoted by other people as well as by self-discovery' since according to them 'metacognition is a mirror on one's knowledge and thinking, and the reflection can come from within the individual or from other people'. In this study I take the view that metacognition has both a cognitive and social orientation. Therefore, to promote metacognition of reading strategies in students I provided them with opportunities to practice the taught reading

strategy independently as well as in small groups during the lessons. Moreover, I performed teacher modelling (for definition and details see Section 3.2.7) to mediate students' understanding of the taught reading strategy.

3.2.2 Definition of metacognition

Metacognition has been defined by a number of theorists. In his influential work, Flavell (1976: 232) has defined metacognition as encompassing knowledge about, as well as the regulation of, cognition:

> Metacognition refers to one's knowledge concerning one's own cognitive processes and products or anything related to them ... Metacognition refers, among other things, to the active and consequent regulation and orchestration of the processes ... usually in the service of some concrete goal or objective.

Some researchers present a briefer definition of metacognition. For instance, Brown (1978: 79) defines metacognition by emphasizing its knowledge component by stating that it is 'knowing about knowing' and 'knowing how to know.' Martinez (2006: 696), on the other hand, has defined metacognition by emphasizing the regulative component of metacognition and stated that it is the 'monitoring and control of thought.' Other researchers, for instance, Tei and Stewart (1985: 47), have cast the net wider like Flavell (1976) by defining metacognition more comprehensively as 'having knowledge (cognition) and having understanding, control over, and appropriate use of that knowledge'. In sum, metacognition has been widely but not exclusively defined in terms of the knowledge and regulative components of cognition (Dinsmore et al. 2008; Schunk 2008). In the literature, the knowledge and regulative components of metacognition are also referred to as 'awareness and control', or 'self-appraisal and self-management' (Brown 1987; Cross & Paris 1988; Paris & Winograd 1990). Given

various renderings of the construct, the term metacognition has been criticised for being somewhat 'fuzzy' (Flavell 1981: 37) and 'problematic since its inception' (Brown 1987: 66).

Brown (1987: 65) states that the knowledge aspect of metacognition 'can be reflected in effective use or overt description of the knowledge in question'. On the other hand, the control aspect of metacognition can be seen in the 'ability to use self-regulatory mechanism' such as checking, planning, monitoring, testing and revising (Baker & Brown 1984b: 22). Educational psychologists often use the term 'self-regulation' to refer to the skills of planning, monitoring and evaluating. It is noteworthy that the construct of 'self-regulation' is closely aligned with metacognition (Baker & Beall 2009) and is most often situated as a subset of metacognition (Baker 2002; Griffith & Ruan 2005). In fact, according to Borkowski et al. (1992 cited in Baker & Beall 2009) self-regulation is the 'heart' of metacognition since it is associated with the control aspect of metacognition. However, the constructs of metacognition and self-regulation are not exactly alike as the construct of self-regulation also emphasizes behavioural and emotional regulation (e.g. Bandura 1991) and refers to the monitoring and control of behavior, cognition, motivation, and the environment (Efklides 2011).

Although metacognition has generally been studied in relation to knowledge and the regulation of cognitive processes (e.g. Brown & Smiley 1978; Baker & Brown 1984a), contemporary research is now recognizing that it is important to examine motivational and affective factors along with metacognitive factors to ‘understand how and why people perform as they do on cognitive tasks’ (Baker & Beall 2009: 375). Indeed, Paris and Winograd (1990: 15) have suggested expanding the scope of metacognition by asserting that it also includes 'affective and motivational characteristics of thinking'. In more detail, they asserted that 'self-appraisal and self-

management are personal assessment filled with affect' (ibid.: 24). To illustrate, they pointed out that if students are asked questions like 'Are you a good reader? Do you like reading? Why did you get high/low grade on a reading test? Is this reading task easy or hard? Do you care to get a good grade?' they will respond with strong emotions since 'cognitive evaluations are rarely dispassionate assessments' (ibid.: 23). They therefore argued that judgments regarding self, the learning task and the learning situation have affective and motivational characteristics and at the same time 'are metacognitive self-appraisals because they involve cognitive dimension of evaluation' (ibid.: 27). Baker and Beall (2009) indicate that other scholars have not redefined metacognition in this manner. However, reading researchers have acknowledged that since the regulation of cognitive processes during reading takes effort (Samuel et al. 2005; Baker 2008a), readers 'must be motivated' or 'willing to' take action to self-regulate their learning (Samuel et al. 2005: 51). In other words, regulation of cognitive processes is not likely to happen till a person is willing or is motivated to do so (Cross & Paris 1988). It therefore seems that motivation plays an important role in metacognition, just as it does in the use of strategies as discussed in Section 3.1.3. This study defines metacognition in terms of knowledge and regulation components of cognition (see Section 3.2.3). It also takes the view that readers regulate their cognitive processes when they are motivated or willing to do so, consciously or unconsciously. Moreover, it suggests expanding the scope of metacognition since the data from the current study supports Paris and Winograd's (1990) contention that metacognition includes affective characteristics of thinking (for details see Chapters 6, 7 and 8).

3.2.2.1 The distinguishing features of metacognition and cognition

Determining what makes a behaviour metacognitive as compared to cognitive is an issue that researchers puzzle over throughout the metacognition literature (e.g. Garner 1987). It is not easy to resolve this issue since any attempt to separate metacognition from cognition results in difficulties in identifying which strategies are metacognitive and which are cognitive (Brown 1987). For example, in reading deciding whether 'highlighting' and 'rereading' a text should be deemed a metacognitive or cognitive strategy seems difficult to decide. However, this is not to say that theorists have not made an attempt to highlight the difference between metacognition and cognition. Rather, they have realized that it is difficult to distinguish clearly between what is 'meta' and what is cognition (Brown et al. 1983).

Generally, the main distinction between the two is said to be the change in emphasis (Tarricone 2011). That is, the term 'meta' when added to any term such as 'cognition' or 'language', signifies a change in emphasis to 'knowledge about one's own cognition rather than the cognitions themselves' (Brown 1978: 79). On the other hand, cognition refers to the 'intellectual functioning of human mind and is characterized by remembering, comprehending, focusing, attention, and processing information' (Babbs & Moe 1983). In other words, the main distinction between metacognition and cognition is that metacognition is considered to be 'second-order cognitions: thoughts about thoughts, knowledge about knowledge, or reflections about actions' (Weinert 1987: 8).

Flavell (1979) acknowledged that metacognitive knowledge (see Section 3.2.4.1) may not be different from cognitive knowledge. For him, the defining criterion for distinguishing between metacognition and cognition lies in how the information is

used. This is in line with other theorists who suggest that metacognition involves overseeing that the cognitive goal has been reached (e.g. questioning oneself to evaluate one's understanding of text) while cognition helps individuals achieve a particular goal (e.g. understanding a text). In keeping with this, *metacognitive strategies* are defined as strategies which 'involve thinking about the learning process, planning for learning, monitoring of comprehension or production while it is taking place, and self-evaluation of learning after the language activity is completed,' whereas *cognitive strategies* are defined as strategies which 'are more directly related to individual learning tasks and entail direct manipulation or transformation of the learning materials' (O'Malley et al. 1985: 561). Put simply, metacognitive strategies are used by learners 'for *monitoring* cognitive progress,' while cognitive strategies are used by learners 'for *making* cognitive progress' (Flavell 1981: 53, emphasis in original). This is why metacognitive strategies span multiple subject areas (Schraw 1998) whereas cognitive strategies ‘are likely to be encapsulated within a subject area’ (Phakiti 2003: 30).

With respect to reading, metacognitive strategies are defined as those intentional, carefully planned actions that learners take to monitor or manage their reading, while cognitive strategies are the actions readers take while working directly with the text as stated before (Sheorey & Mokhtari 2001). Based on these distinctions it seems probable to answer the question raised above thus: when 'highlighting' or 're-reading' is used to monitor one's cognitive processes it is metacognitive, but when it is used to achieve the cognitive goal of, for instance, remembering or finding out the key idea in a text, then it is a cognitive strategy. This also suggests that the same strategy could be regarded as either cognitive or metacognitive depending on the purpose of that strategy.

3.2.3 Definition of metacognition as applied to reading

The concept of metacognition has been applied to reading by a number of researchers since research documented metacognitive ability as one of the characteristics of skilled L1 and L2 readers, as stated before. Baker and Beall (2009) indicate that Flavell's two-component conceptualization of metacognition (see Section 3.2.2) has been widely used in reading. For instance, Baker and Brown (1984a) have defined metacognition in reading as consisting of two interrelated clusters of information, namely 'knowledge about cognition' and 'regulation of cognition' (Baker & Brown 1984a: 353). According to Baker and Brown (1984a), knowledge about cognition in reading includes the knowledge readers have about their own cognitive resources, the reading task, and the compatibility between the two. Whereas, regulation of cognition consists of a mechanism that includes 'checking the outcome of (strategy use), planning one's next move, monitoring the effectiveness of any attempted action, and testing, revising and evaluating one's strategies for learning' (Baker & Brown 1984a: 354). Schmitt (2005), has also defined metacognition as consisting of awareness and control components. For the purpose of this study I would define metacognition when applied to reading as *knowledge concerning those skills and strategies that help the reader meet the demands of the reading goals, reading tasks and reading context as well as the regulation of the readers' own ongoing comprehension processes.*

3.2.4 Components of metacognition in relation to reading

As discussed above, metacognition is usually conceptualized as having two fundamental components: 1) metacognitive knowledge (i.e., knowledge about cognition) and 2) regulation of cognition (Schraw & Moshman 1995; Harris et al. 2010). Researchers are of the opinion that these two components are distinct but not totally independent of one another (Schraw & Moshman 1995; Griffith & Ruan 2005).

In this section I will discuss these two components of metacognition in detail through examples from reading.

3.2.4.1 Metacognitive knowledge

The first component of metacognition, metacognitive knowledge 'is also labelled as metacognitive awareness' (Pintrich et al. 2000: 45) in some models of metacognition. Metacognitive knowledge includes two components: knowledge about cognition and awareness of one's own cognition (Harris et al. 2010). Metacognitive knowledge is 'that portion of the total knowledge base that pertains to a given area of cognitive activity' (Flavell 1985 cited in Garner 1987). Metacognitive knowledge is usually referred to as statable information about cognition (Baker & Brown 1984a; Pintrich et al. 2000). It is statable since 'one can reflect on the cognitive processes involved and discuss them with others' (Brown et al. 1983: 107). Flavell (1985 cited in Garner 1987) and other theorists (e.g. Pintrich et al. 2000) point out that metacognitive knowledge is similar to other kinds of knowledge stored in long-term memory. Therefore, it can be retrieved and used during a cognitive enterprise either automatically or deliberately (Flavell 1981) and its basis can be flawed just as the basis of other kinds of knowledge (Flavell 1985 cited in Garner 1987). Bransford et al. (1999) state that metacognitive knowledge seems to be related to the transfer of learning. That is, metacognitive knowledge gained in one setting or situation could be used in another. Research demonstrates that metacognitive knowledge usually improves performance (Schraw & Moshman 1995). In the domain of reading, research has indicated a causal role of metacognitive knowledge in reading comprehension (Pressley et al. 1992a).

Flavell (1976, 1981, 1987) proposed that metacognitive knowledge can be subdivided into three categories: knowledge of person variables, task variable and strategy variables. These categories represent ‘key components in the process of cognitive self-appraisal’ (Vandergrift et al. 2006: 433). The knowledge of person category refers to ‘the kind of acquired knowledge and beliefs that concern what humans are like as cognitive organisms’ (Flavell 1987: 22). Flavell (1981) postulates that there are three subcategories of person variables: intra-individual differences, inter-individual differences and universals. Intra-individual difference is knowledge or belief that ‘we are more skilled or interested in this type of cognitive processing than in that’ (Flavell 1981: 43). With respect to reading, an example of intra-individual difference is a reader’s belief that he/she is more skilled or interested in scanning a text than in recalling it. Another example of intra-individual difference could be 'I can read and understand Urdu easily compared to English.' Alternatively, inter-individual difference is the comparison ‘between rather than within persons’ (Flavell 1987: 22). Examples might be that one student is a better summarizer of text content than his/her friend, but that the friend is better predictor than certain of his/her friends. The last subcategory is concerned with the ‘acquired ideas about universal aspects of human cognition’ (Flavell 1987: 22). In reading, an example of this could be readers’ knowledge that one has to pay closer attention to academic reading as compared to pleasure reading in order to learn from it. Pintrich et al. (2000: 46) proposed that the person variables do represent knowledge of self and are therefore metacognitive. However, because they (except the universals of cognition) involve the self, they are ‘hot’ cognitions and not ‘cold’ cognitions and ‘are better seen as motivational constructs’. Hot cognition is cognition coloured by emotion (Brand 1985), whereas cold cognition is the use of logical thinking in cognitive processing and is likely to be emotionally neutral (Roiser & Sahakian 2013). Knowledge about task category

includes ‘knowledge about how task variations can influence cognition’ (Pintrich et al. 2000: 46). For instance, if the task is less difficult it could be easy to attempt it successfully, like trying to remembering the gist of a narrative as compared to remembering it verbatim. This category also includes knowledge about the nature of the task, the purpose of the task and the task demands (Zarei 2010). An example of awareness of the nature of the task could be 'I know that reading is a left-to-right activity in English and right-to-left activity in Urdu.' Knowledge about the use to which the processed information will be put also has implications for how information is processed (Flavell 1981). For instance, if a reader is reading a text to repeat its gist, he/she will not attempt to remember all the details. Conversely, if a reader knows that he/she will be assessed on the details he/she will try to remember them. Knowledge of strategy variables includes knowledge about the strategies that are likely to achieve goals and subgoals in a cognitive undertaking (Flavell 1981; Vandergrift et al. 2006). Flavell (1981) suggested that cognitive strategies can be distinguished from metacognitive strategies (see Section 3.2.2.1 for distinction between the two).

According to Flavell (1981), these three classes of variable - person, task and strategy - are dependent on one another and are highly interactive. This can be illustrated through an example. Imagine an experienced reader who may know that when she is tired she is more likely to have comprehension problems (person knowledge). In addition, she might also know that reading for academic purposes requires careful and critical reading (task knowledge). To read such a text effectively when she is tired might involve note-taking and re-reading skills (strategy knowledge) to ensure that important information is not missed due to fatigue and the nature of task. Hence, it seems reasonable to claim that all three kinds of knowledge are possessed by a skilled reader.

Metacognitive knowledge is further broken down into declarative, procedural and conditional knowledge (Brown 1987; Garner 1987; Jacobs & Paris 1987; Paris et al. 1983; Schraw & Moshman 1995). Harris et al. (2010) state that the successful application and coordination of all these three facets of metacognitive knowledge ensures academic development and performance. *Declarative knowledge* is the 'knowledge of the what of cognition' (Pintrich et al. 2000: 48). In other words, it refers to 'knowing *what* or knowing *that'* (Schmitt 2005: 102). To be a good reader one must have declarative knowledge about self, task and strategy variables (Schmitt 2005). With respect to reading strategies, declarative knowledge is the knowledge about what strategies are and 'can help readers in setting goals and adjusting actions to changing task conditions' (Paris et al. 1983: 303). *Procedural knowledge* includes knowing how to perform and use the cognitive strategies (Pintrich et al. 2000). Procedural knowledge is important 'since one must know *how* to perform various strategies involved to be successful' (Schmitt 2005: 102, emphasis in original). Also, procedural knowledge is important since it helps students perform task more automatically (Pressley et al. 1987); possess a larger repertoire of strategies; sequence strategies effectively (ibid.); and use different strategies to solve problems (Glaser & Chi 1988 cited in Schraw 1998). Paris et al. (1983: 303) state that procedural knowledge is often gained from explicit instruction or from repeated experience. Since declarative and procedural knowledge emphasize only the knowledge and skills required for performance, Paris et al. (1983: 303) introduced a new term, conditional knowledge, to talk about the 'conditions under which one might wish to select or execute actions'. *Conditional knowledge* includes 'knowing *when* and *why* to apply various actions' (Paris et al. 1983: 303). Conditional knowledge is important because it helps students to selectively allocate their resources and use strategies more effectively (Reynolds 1992). Also, it enables students to adjust to the changing situational demands of each

learning task (Schraw 1998). Conditional knowledge also provides a rationale for the execution of various cognitive actions (Paris et al. 1983). Having a rationale for executing an action could make that action appear valuable to students who could then become motivated to execute it. As Paris et al. (1983: 312) put it: 'Conditional knowledge is the glue that holds skill and will together'. Conditional knowledge is often equated with executive control since it deals with online monitoring of cognition (Schmitt 2005). It is well established in the literature that without conditional knowledge an expert with full procedural knowledge could not adjust his/her behavior according to the demands of the changing task (Paris et al. 1983).

Metacognitive knowledge develops with age and experience (Baker 2008a). It appears early and continues to develop at least throughout adolescence (Brown, 1987; Flavell, 1987; Garner and Alexander, 1989). Several studies have shown that adults are more aware of their own cognition and are able to describe their knowledge of cognition better (Baker 1989). In fact, a substantial body of research shows better metacognitive knowledge and control among older and high achieving students (Baker 2008a).

Metacognitive awareness is considered to be a critical element of proficient, strategic reading (Carrell et al. 1989; Auerbach & Paxton 1997). Perhaps this is why increasing metacognitive knowledge of comprehension processes while reading is regarded as 'an important first step towards becoming constructively responsive, strategic, and thoughtful readers' (Mokhtari et al. 2008: 58). Many researchers (e.g. Casanave 1988; Mokhtari & Sheorey 2008) have emphasized the centrality of metacognitive awareness in comprehension and reading strategies. In this regard, Pressley and Gaskins (2006: 103) state that 'good readers possess metacognitive knowledge about reading strategies'. According to Sheorey and Mokhtari (2001: 433), 'the reader's metacognitive knowledge about reading includes an awareness of a variety of reading

strategies and that the cognitive enterprise of reading is influenced by this metacognitive awareness of reading strategies'. The knowledge about what, how, when, and why associated with the use of strategies plays a critical role in promoting the autonomous use of strategies (Pressley et al. 1989a). In this AR study I plan to promote the metacognitive knowledge of reading strategies in adult Pakistani ESL students.

3.2.4.2 Regulation of cognition

The second major component of metacognition, regulation of cognition, refers to metacognitive activities that help control one's thinking or learning (Schraw & Moshman 1995). Baker and Brown (1984b) indicate that regulation of cognition involves the ability to use the self-regulatory mechanisms such as checking, planning, evaluating, revising to ensure successful completion of the task. Generally, three mechanisms of metacognitive self-regulation included in all accounts are: planning, monitoring, and evaluation (Jacobs & Paris 1987; Schraw 1998; McCormick 2003; Phakiti 2008; Harris et al. 2010). Planning involves selecting suitable strategies and allocating cognitive resources to achieve a goal (Schraw 1998). Monitoring refers to checking comprehension in the act of reading; involving evaluating comprehension problem(s) and double-checking comprehension (Phakiti 2008). Evaluation involves assessment of the task and the effectiveness of the strategies for the task (Paris et al. 1992). In the literature 'the use of these self-regulatory mechanisms is known as cognitive monitoring' (Baker & Brown 1984b: 22).

Flavell (1979) presented a plausible model of cognitive monitoring that became the basis for research on metacognition in various disciplines. According to his model, people monitor the cognitive enterprise they undertake through the actions and

interactions of four classes of phenomena or components that can prompt each of the others: metacognitive knowledge, metacognitive experiences, goals (or tasks), and actions (or strategies).

Metacognitive experiences

Metacognitive experiences, are defined by Flavell (1987: 24) as 'conscious experiences that are cognitive or affective'. Flavell (1987: 24) states that metacognitive experiences are different from other kind of experiences since 'they have to do with some cognitive endeavor or enterprise'. In keeping with Flavell (1987), Pressley et al. (1985: 126) state that metacognitive experiences are about 'cognitive goals, cognitive actions, and/or metacognitive knowledge'. Flavell (1987) indicates that metacognitive experiences occur most frequently during a current, on-going cognitive process. On the other hand, Yussen (1985: 256) states that metacognitive experiences occur 'while the cognitive enterprise is rolling along' and that they are 'here-and-now-reactions to the ongoing cognitive activity'. However, in my opinion, metacognitive experiences can occur even when one is not involved in a 'here-and-now' cognitive activity. For instance, one of the metacognitive experiences is to realize that there is a connection between two separate ideas one has read earlier, and this realization can even come during an unrelated activity, such as driving.

Metacognitive experiences concern persons (self, others, everyone), tasks, goals, strategies and interactions between them (Flavell 1981). As examples, after reading during group discussion of a text a reader might realize that he/she has understood the text, however his/her friend has not; a reader might notice that he/she has understood the task demands and has the abilities to perform it; or has the opposite of these feelings.

Metacognitive experiences are not rare (Flavell 1981). However, they are more likely to occur more frequently in certain conditions than others. Firstly, they can occur whenever one does a lot of conscious cognition (Flavell 1981). In certain situations there could be explicit demand to engage in cognition. As examples, a teacher might ask students to evaluate the intentions of an author in writing a text; or ask to justify an opinion regarding a character in a narrative text. Alternatively, in certain situations the demand to engage in cognition could be implicit, for instance, while trying to write a summary of a text. Secondly, metacognitive experiences can occur when 'the cognitive situation is something between completely novel or completely familiar' since in this situation an individual knows enough to formulate questions but not enough for the processing to be completely accurate and effortless (Flavell 1987: 28). Thirdly, metacognitive experiences are likely to occur when it is important to 'make correct inferences, judgments, and decisions' since one would monitor them carefully (ibid.). Fourthly, metacognitive experiences can occur when cognition fails or when an individual realizes that he/she is having difficulty in carrying out a task (Flavell 1981; Garner 1987). As examples, a reader notices that he/she is unclear about the meaning of an important word in a text; discovers that his/her previous inference was erroneous; or is uncertain if he/she has achieved the specified goal. It is important to remember that complex forms of metacognitive experiences occur only when one has sufficient time, attention and memory resources available to think about one's cognition (Flavell 1981). A case in point could be figuring out 'why' one did not understand a text as compared to noticing that one did not understand it. Flavell (1987) states that the first indication that an individual may have of a metacognitive experience is a feeling of uneasiness. However, an individual's awareness of success or satisfaction is also included in this category. On the other hand, metacognitive experiences are not likely to occur or be likely to terminate in certain conditions:

when one could reach the goal with little or no conscious thought; when one does not assign any importance to a cognitive activity; when one has reached the goal; or when one is under some kind of cognitive or affective overload (Flavell 1981).

Metacognitive knowledge serves as a basis for metacognitive experience (Garner 1987). Flavell (1981: 45) states ‘the occurrence of metacognitive experiences and the effects of their occurrence (what further experiences they engender, what inferences or other cognitive actions they lead to) can be strongly influenced by metacognitive knowledge’. To illustrate, if a reader feels lost while reading a text, his/her metacognitive knowledge might make him/her attend to this feeling as it could be an indicator of incomprehension. This in turn could make him/her find out the cause of the feeling and then take actions to clarify understanding of text as much as possible. However, it is noteworthy that ‘not all metacognitive experiences are items of metacognitive knowledge that have become conscious’ (Flavell 1981: 46). For example, a feeling of surprise on reading an unexpected piece of information in a text is not in itself such an item. How one would deal with it, however, would be guided by one’s metacognitive knowledge.

Metacognitive experiences can play an important role in the development of metacognitive knowledge (Flavell 1981). For instance, they can prompt revision of metacognitive knowledge. To illustrate, the realization by a reader that he/she forgets the important dates while reading a history text prompts extra effort to include this information in the knowledge base. Flavell (1981: 50) states that one can 'notice and store as metacognitive knowledge what metacognitive actions and outcomes co-occur with what metacognitive experiences’. Similarly, metacognitive experiences can prompt 'the use of cognitive and metacognitive strategy' to achieve the cognitive goals (Garner 1987). For instance, while reading a reader may become aware that he/she has

not understood the previous page of the text he/she is reading. This metacognitive experience may result in the deliberate rereading of the previous page to comprehend it better. Metacognitive experiences can lead to changes in both cognitive goals and cognitive actions (Pressley et al. 1985). To illustrate, a reader realizes that he/she does not has the ability to perform a task. Hence, he/she might abandon the goal of performing it or could ask for help to execute it successfully (strategy use). Alternatively, a cognitive goal may trigger a metacognitive experience (Flavell 1981). For instance, while reading a research paper a student may remember that he/she had difficulty reading a research paper in the past and thus can feel discouraged. In this way metacognitive experiences can 'colour what students think about themselves as learners with strong emotions' (Paris & Winograd 1990: 23).

Flavell (1981) indicates that with the increase in age the tendency to notice, attend to and evaluate metacognitive experiences increases. In addition, as one grows older one learns how to interpret and respond appropriately to metacognitive experiences (Flavell 1987). That is, the capacity 'to evaluate their meaning, importance, trustworthiness, and possible implications for cognitive actions' also increases with age (Flavell 1981: 50). The converse implication that research supports is that young children may have such conscious experiences. However, they may not know how to interpret them very well or what these experiences mean and imply (Flavell 1987).

To elaborate, children differ considerably from adults in their monitoring of cognition. That is, they do little monitoring of their own memory, comprehension, and other cognitive enterprises as compared to an adult (e.g. Flavell & Wellman 1977; Kreutzer et al. 1975 cited in Flavell 1979). Indeed, reading research indicates that both younger and poorer L1 and L2 readers are less good in monitoring their reading since they have limited awareness of the metacognitive strategies they can employ during the

experience of failure to help themselves understand (Baker 2008a). Research also indicates that younger children have difficulty evaluating their own comprehension because they process the text at word or sentence level and thus do not integrate material as actively as older or more skilled readers (Markman 1981). Also, older children make more plans than younger children in preparing for retrieval (Kreutzer et al. 1975 cited in Garner & Alexander 1989).

From an instructional standpoint, making students aware of their metacognitive experiences is an important pedagogical goal since such awareness facilitates monitoring of comprehension and thereby results in cognitive progress. Alternatively, if a reader is not aware of his/her failure to understand (a metacognitive experience), then he/she could continue to read the text without making any meaning of it. In my study, I therefore plan to promote students' noticing of metacognitive experiences during reading.

Cognitive goals (or tasks)

Cognitive goals (or tasks), the third category in Flavell's model of cognitive monitoring, are 'the tacit or explicit objectives that instigate and maintain the cognitive enterprise' (Flavell 1981: 40). According to Flavell (1981) goals can change in the course of any given enterprise as discussed earlier. In addition, goals could be self-selected, imposed by others or circumstances or could be a mixture of the two. Moreover, it is possible for a cognitive enterprise to have more than one goal. For instance, during reading a reader could simultaneously try to understand the text and evaluate the validity of the claims made by the writer.

Cognitive goals influence cognitive actions (Flavell 1981). That is, what depth and type of processing of information will be done in a cognitive enterprise varies with a

reader's cognitive goals. To illustrate, if the goal of reading is pleasure then a reader will not try to remember all details of the text. On the other hand, if one is reading for exams one would try to remember the details. Flavell (1981) also points out that the influence of cognitive goals on cognitive actions also becomes apparent when the subgoals within a single extended cognitive enterprise vary. An instance of this could be seen when a reader skims part of a text that is not too important for his/her goals and processes another part more deeply since that is important for the desired goal.

Metacognitive goals may be distinguished from cognitive goals. For example, in the case of reading, a cognitive goal or task may require a reader to synthesis two texts, but the metacognitive goal is to monitor that process to estimate its success. Flavell (1981) indicates that with the increase in age the ability to recognize goals, clarify unclear goals, pursuing several goals at once, setting goals, adopt and pursue goals could increase. In addition, he states that with age it is expected that 'the tendency for cognitive goals to call up relevant segments of metacognitive knowledge' increase (Flavell 1981: 42). Paris et al. (1983: 302) state that 'young children may not understand cognitive goals'. One reason for this could be that an older child may have more well learned, organized and generalized knowledge that he/she could search when 'establishing and pursuing a cognitive goal' (Flavell 1981: 43).

From an instructional standpoint, it is important to encourage students to set goals during reading as 'preparing and planning for learning' is a primary component of metacognition (Anderson 2008: 99). Also, planning help students initiate metacognitive regulation as indicated by Schreiber (2005). In this study, therefore I plan to encourage students to set and monitor their goals during reading (see Chapters 5 and 6).

Cognitive actions (or strategies)

Cognitive actions (or strategies) are routines or procedures that facilitate a task. They are used by individuals to achieve the goals of the cognitive enterprise (Flavell 1981). Readers may refer to Section 3.1.2 for the definition of reading strategies.

Cognitive actions are important as they could provide input to metacognitive knowledge and could lead to metacognitive experience (Flavell 1981). In addition, they could lead to cognitive goal(s). To illustrate, imagine a reader uses the strategy of taking notes during reading for the first time (cognitive action). He/she notices a few days later that this strategy has helped him/her remember information in the text (metacognitive experience). Consequently, he/she decides to use it in future too (cognitive goal). Put another way, the reader adds to his/her knowledge base the successful use of the strategy and therefore might use it again in future.

Thus, cognitive action can have cognitive outcomes, metacognitive outcomes or both (Flavell 1981). This suggests that a reader could carry out a cognitive action to achieve both cognitive and metacognitive objectives. To illustrate, a reader may reread a text to evaluate his/her understanding of it (metacognitive objective); and to remember it in more detail (cognitive objective). According to Flavell (1981: 53), the former action 'will yield cognitive outcome as well as metacognitive experiences', while later 'can yield metacognitive experiences as well as cognitive outcomes'. In sum, cognitive actions or strategies can help one make and monitor cognitive progress (Flavell 1981). In this study, students were taught reading strategies to help them facilitate and monitor their reading comprehension.

3.2.5. Cognitive flexibility, reading and metacognition

In the contemporary cognitive development literature the construct of cognitive flexibility has been defined as 'an aspect of executive control that involves the ability to coordinate simultaneously, and access flexibly, multiple features of cognitively complex tasks' (Cartwright 2009: 115). For instance, in the cognitively complex task of reading readers are required to process and coordinate multiple features of text for skilled reading (e.g. phonological, orthographic, morphological, syntactic, semantic). Research on cognitive flexibility demonstrates that it is domain-specific and that it improves with age (Inhelder & Piaget 1964 cited in Cartwright 2009). In addition, research indicates that support (Kirkham et al. 2003 cited in Cartwright 2009) and practice (Bigler & Liben 1992 cited in Cartwright 2009) improves cognitive flexibility. In the reading literature flexibility is not a new concept. Its importance has been recognized in the literature for almost a century (Cartwright 2009). The literature establishes that reading, whether in L1 or L2, is cognitively complex and requires flexible consideration and simultaneous processing of multiple text elements (e.g., phonological, orthographic, syntactic, semantic) and information about one's own cognitive processes (strategic and metacognitive). In other words, skilled L1 and L2 reading requires 'cognitive juggling' (Pressley et al. 2009) and it is this that characterizes a good reader: 'One sign of a good reader is flexibility' (Fry 1978: 11 cited in Cartwright 2009). According to Block et al. (2001: 42), 'Skilled readers process many thoughts as they read...and such complex cognitive, metacognitive, attentional, and emotional processes are difficult to negotiate'. In addition, a skilled reader is expected to adapt his/her reading skills to meet the demands of the reading goals and the 'material they wish to cover' (Fry 1978 cited in Cartwright 2009). This conception of a skilled reader is certainly consistent with current theories of reading that emphasize the multiplicity, complexity, and simultaneity inherent in skilled

reading (e.g., Adams 2004) and regard reading-specific cognitive flexibility essential for success in reading. Recently, the notion of cognitive flexibility got further validation from the review of work by Pressley and Lundeberg (2008) on expert readers' cognitive processes. This review demonstrates that expert reading comprehension is 'massively flexible' and 'is an acquisition that involves many components and develops over an extended period of time' (ibid: 2 cited in Cartwright, 2009). Alternatively, the literature indicates that 'to focus on only one aspect of a task or situation is the hallmark of cognitive inflexibility' (Cartwright 2008: 50). Reading research indicates that training with reading-specific flexibility tasks improves children's reading comprehension (Cartwright 2008).

On looking closely at the construct of metacognition when applied to reading it becomes obvious that metacognition by its nature involves cognitive flexibility (Cartwright 2009). This is so since metacognition requires the simultaneous coordination of the metacognitive knowledge variables, i.e. person, task and strategy and action and interaction between metacognitive knowledge, metacognitive experiences, goals (or tasks), and actions (or strategies). It is noteworthy that Guthrie (1982: 512) compared metacognition and reading flexibility: 'Is metacognition simply a new term for reading flexibility, and do we simply have old wine in new bottles?' However, he concluded that both are distinct since ‘metacognition refers to cognitive processes and reading flexibility refers to reading behaviors that are influenced by characteristics of the text’ (ibid.). He further elucidated the difference between the two by stating: ‘the emphasis in the metacognitive studies is on how people take control of their own learning and regulate their attention and integrative efforts to comprehend new ideas and concepts. The emphasis in the reading flexibility literature is on how the dependent variables such as reading rate are influenced by independent variables

such as levels of difficulty, purposes of the reader, and familiarity of the reader with the content of the text. In other words, metacognitive processes are the operations that allow reading flexibility to occur' (ibid.). However, in this study I propose that the relation between metacognition and reading-specific cognitive flexibility is reciprocal since in my view metacognition no doubt allow reading specific cognitive flexibility to occur but cannot occur itself without cognitive flexibility. Hence, I posit that the role of cognitive flexibility should be highlighted in the model of cognitive monitoring when it is applied to reading.

3.2.6 Research on metacognition in reading

Research in the area of metacognition and reading started documenting findings related to metacognitive awareness, strategy use and metacognitive regulation in 1970s. Most of this early research was carried out on L1 children (El-Hindi 1993). In the 1980s when metacognitive theory was applied to L2 reading a number of studies were conducted relating to adult metacognition and reading (e.g. Knight et al. 1985; Carrell 1989; Anderson 1991). This section reviews the empirical studies which examine adult L2 readers' metacognitive awareness, strategy use and regulation of reading. It also discusses studies that employed metacognitive reading strategy instruction to improve adult L2 students reading skills and suggest the gaps that are potentially filled by this research.

3.2.6.1 Studies of metacognitive awareness and strategy use

Related to the first aspect of metacognition, knowledge of cognition, an early study was carried out by Devine (1984) who investigated adult ESL readers' conceptualizations of the reading process and the impact of their conceptualizations on their reading performance. The study was based on the hypotheses that adult ESL

readers would have internalized models (or theoretical orientations) of reading which they could verbalize and, that these models would affect the type of print information the reader focuses on in reading and the success of reading comprehension. The participants in the study were 20 beginning/low intermediate level students studying in a community-based ESL program in US. Their ages ranged from 19 to 40. Data for the study was collected by means of an oral reading interview, a sample of oral reading and a retelling of oral reading. The results of the study showed that ESL readers did indeed hold sound-, word-, or meaning-oriented model of reading which they brought with them to the reading classroom. The writer noted that those ESL readers who held sound-centered model of reading believed that mastery of sounds, as evidenced by good pronunciation, appears to define good reading, while those who held word-centered model of reading believed that word recognition or decoding primarily constitutes good reading. She also noted that ESL readers who possessed meaning-centered model of reading regarded the ability to understand meaning of a text as the measure of success in reading. The study also showed that correspondence existed between the type of information (graphic/ sound, syntactic, or semantic) that the readers focused on in oral reading and the model of reading they held. Moreover, the study revealed that meaning-centered readers demonstrated good to excellent comprehension on the retelling task, while sound-centered readers demonstrated poor or very poor comprehension. The comprehension pattern of the word-centered readers showed that apart from one reader who apparently comprehended the text very well all the other readers demonstrated poor or fair comprehension. The writer suggests that the teachers of L2 reading should attempt to identify the models of reading students hold since they affect reading performance. She also suggests that teachers may help students in adopting a meaning-centered approach to reading as it seemed to predict more successful comprehension. In relation to this suggestion, she also

cautions teachers that some tasks might reinforce word- or sound-centered internalized models of reading in students and may orient them away from the meaning-centered model of reading. This study generated much interest in the models of reading held by adult L2 readers. However, surprisingly, there is not much research activity on this aspect of metacognitive knowledge of adult L2 readers in the literature.

Much reading research carried out on adult L2 students has focused on the relation between their metacognitive awareness about reading strategies and reading achievement. An early study that investigated the relationships among reading comprehension, strategy use and perceived strategy use was carried out by Barnett (1988). The participants in this large scale quantitative study were 272 students learning fourth semester French in a university in US. The study required students to both read an unfamiliar passage and write a recall protocol in English. Moreover, it asked the students to answer a series of background knowledge questions before reading a text. It also required students to continue the ending of a text and answer a seventeen-item questionnaire in English about the types of reading strategies they thought best described the way they read. Results of the study showed that reading comprehension, strategy use and perceived strategy use were significantly correlated for university level students. Barnett found that firstly, comprehension of the student increases with the better use of strategy of reading through context (i.e. strategy use) and secondly, students who claimed to use those strategies considered most productive (i.e. perceived strategy use) seemed to use better strategies at understanding sentences in context and they also seemed to have a higher reading ability.

Carrell (1989) also reports the metacognitive awareness of (i.e., judgments about) various types of reading strategies by two groups of second language learners in both their L1 and L2, and the relationship between their awareness and reading comprehension. The first group included 45 native speakers of Spanish at intermediate to advanced levels of English enrolled at an ESL intensive program in a university in US. The second group consisted of 75 native speakers of English studying intermediate to advanced levels of Spanish. A metacognitive questionnaire was developed to tap the participants' metacognitive awareness about reading strategies in both their first and second language. The participants were also tested in both their first and second languages by reading a text in each language and then answering multiple-choice comprehension questions pertaining to the text. The results of the study were reminiscent of Devine's (1984) study, as they showed that in general the better readers in both groups as compared to the lower-level students did not focus on local or bottom-up processing. Specifically, for reading in the L1, local reading strategies such as focusing on grammatical structures, sound-letter, word-meaning and, text details tended to be negatively correlated with reading performance. For reading in the L2, there were some differences between the Spanish L1 and the English L1 groups. The ESL group, of more advanced proficiency levels, tended to be more global (used background knowledge, text gist, and textual organization) or top-down in their perceptions of effective and difficulty-causing reading strategies, while the Spanish group at lower proficiency levels tended to be more local or bottom-up. These studies join several others earlier studies within the literature that tended to investigate the relation between students' metacognitive awareness of reading strategies and their reading ability.

Investigation of the relation between metacognitive awareness and reading ability has remained an active and important area of inquiry in L2 studies. Recently, for instance, Dhanapla (2010) investigated metacognitive awareness of 169 Sri Lankan university students with respect to their reading proficiency levels. She used a reading comprehension test and Metacognitive Awareness of Reading Strategies Inventory (MARSI) for collecting data. MARSI is designed for measuring adolescent and adult students' awareness and use of reading strategies while reading academic or school-related materials (Mokhtari & Reichard's 2002). Like earlier studies, the writer found a positive linear relationship between students' metacognitive awareness of reading strategies and their text comprehension.

Madhumati and Ghosh (2012) have also investigated 52 Indian ESL university level students' awareness of reading strategy use and the relationship between their reading strategy use and second language reading proficiency. Their study utilized the Survey of Reading Strategies (SORS), which is designed to investigate L2 students' metacognitive awareness of reading strategies while reading academic or school-related materials (Mokhtari & Sheorey 2002), and a practice version of TOEFL reading comprehension test. The results showed moderate correlation between reading strategy use and reading comprehension achievement. The high proficiency students used reading strategies frequently and selected appropriate strategies for planning and monitoring reading comprehension. By contrast, low proficiency students used inappropriate strategies.

Some recent research has gone beyond demonstration of correlation between metacognition and reading ability and has explored differences in metacognitive awareness and perceived use of reading strategies among first and second language readers of English. For instance, Sheorey and Mokhtari (2001) in a large scale

quantitative study investigated the differences in the metacognitive awareness and perceived use of reading strategies among 105 native English speakers and 152 ESL students studying in a university in US while reading academic texts. For this purpose, they used the Survey of Reading Strategies (SORS). The results showed, among other things, that both US and ESL students displayed awareness of almost all of the strategies included in the survey. In addition, in both groups the high-reading-ability students showed comparable degrees of higher reported usage for reading strategies than the lower-reading-ability students in the respective groups.

Mokhtari and Reichard (2004) also investigated whether significant differences existed between first and second language readers in their metacognitive awareness and perceived use of specific strategies when reading for academic purposes in English. In more detail, they assessed metacognitive awareness of reading strategies of 350 college students, including 141 American studying in an American university and 209 Moroccan students studying in a Moroccan university through administering Metacognitive Awareness of Reading Strategies Inventory (MARSI). The results of the study revealed that both groups of students demonstrated similar patterns of strategy awareness and reported usage although they were schooled in different socio-cultural environments. Specifically, both groups demonstrated a moderate to high level awareness of reading strategies. Concerning the perceived use of strategies, the Moroccan students reported using certain types of strategies more than US students.

More recently, one study has branched out into a new direction by examining the differences in metacognitive awareness of reading strategies between EFL and ESL readers. This was the major purpose of the Karbalaei's (2010) study that investigated whether there are any significant differences between 96 Iranian and 93 Indian college students' metacognitive awareness of reading strategies. The participants completed

the Metacognitive Awareness of Reading Strategies Inventory (MARSI) after performing a reading comprehension test. Results of the study show that both group of students reported a similar pattern of strategy awareness while reading academic texts. Results also revealed that Indian students reported more awareness and use of metacognitive reading strategies. Moreover, Iranian students reported no significant difference in using problem-solving reading strategies.

These studies have offered rich insights regarding adult ESL students' metacognitive awareness of reading strategies but arguably, they captured only two aspects of metacognitive awareness. Essentially, the studies either investigated metacognitive awareness of reading/reading strategies of students at a particular point in time and/or relation between metacognitive awareness and reading ability. The change in metacognitive awareness of reading and reading strategies in adult ESL students over a period of time is a topic that remains to be explored in the literature.

Researching the latter topic is further compelled by the fact that in the area of metacognitive awareness researchers 'are still concerned with causal questions' (Baker 2008a: 37), although longitudinal designs could be valuable for studying temporal development of metacognitive awareness. The current study extends the research in this area by illustrating the changes in adult ESL students' awareness of reading strategies over a period of time. It also sheds light on the metacognitive awareness of reading strategies of Pakistani university level students, which has not been reported in the literature to date.

3.2.6.2 Studies on regulation of cognition

Research related to the second aspect of metacognition, regulation of cognition, is strikingly absent in the studies on adult L2 readers. Indeed, Casanave (1988: 296)

called comprehension monitoring 'a neglected essential' in L2 reading research and recommended that 'research . . . examine . . . the monitoring and repair strategies that L2 populations use and might be taught to draw on as they read'. Noting the absence of research in this area, Block (1992: 322) also reported that 'we know little about the processes that L2 readers use to monitor or evaluate their comprehension and to repair gaps in comprehension, or about the cues to which they attend in this evaluation and regulation process'. Despite these calls, to date there is very little research on the topic of comprehension monitoring with adult L2 readers (Linda Baker, a leading researcher in metacognition and reading, personal communication, July 18, 2015).

In the adult L2 literature, two studies tentatively suggest that metacognitive control distinguishes skilled readers from less skilled readers. For instance, Devine (1998) studied two readers with different model of reading. Her discussion suggests that meaning-oriented readers can overcome the effects of limited language proficiency. Carrell's (1989) study, discussed in the previous section, suggests that L2 readers with greater L2 proficiency favoured a top-down, meaning-based approach to reading as compared to readers with less L2 familiarity who used bottom-up approach to reading.

To my knowledge, the only study that focused on adult L2 students' regulation of cognition is by Block (1992) who explored and compared the comprehension monitoring processes of first and second language adult readers of English. Block collected think-aloud protocols of 25 college freshmen as they read a passage of expository text. She discussed the monitoring process with respect to two language-based problems: finding appropriate pronoun referents and defining unknown words. The results of the study showed that monitoring process comprised of three phases, namely, evaluation phase, action phase, and checking phase. Block observed that the evaluation phase is generated by recognition of problem and identification of the

source of the problem. This phase leads to action phase in which a reader starts engaging in strategic planning, deciding the selections of appropriate strategies, and making attempts at a solution. In the checking stage, the solution is evaluated and, sometimes revised. The study also showed that both native and ESL students who read at an advanced level showed complete and efficient regulatory processes, while the less proficient readers failed to show such processes. Thus, the study indicated that the control of the various stages of regulatory process seemed to depend on the reading ability than to the language backgrounds of the readers.

3.2.6.3 Studies on metacognitive reading strategy instruction

Studies that demonstrated that successful readers generally display a higher degree of metacognitive awareness and regulation 'stimulated interest in the possibility that metacognitive skills might be deliberately fostered' (Baker 2008b: 67). In turn, this led to the design and implementation of training studies. In second language adult reading strategy research there have been a number of intervention studies that have incorporated metacognitive reading strategy instruction.

One of the earliest studies that provided explicit metacognitive instruction to L2 university level students was undertaken by Carrell (1985). The study focused on training of text-structure feature recognition and understanding with the aim to determine whether such instruction would facilitate reading comprehension in a control/experimental design. The participants were 25 high-intermediate proficiency ESL students enrolled in an intensive English program in a university in US. The participants received training for five successive one-hour sessions during a one-week period. The results indicated that the treatment group showed a significant gain in their recognition and use of the text structure while the control group did not. The

study also showed that the treatment group recalled a significantly larger number of idea units from the test passages than the control group. The study therefore indicated that the metacognitive instruction in text structure can benefit relatively high-level second language readers' comprehension.

In another study of what she termed a 'text-strategic' training approach, which involved training on discourse features such as the structure of the text, cohesion and coherence, anaphoric reference, and logical connectors, Hamp-Lyons (1985) provided training to 24 subjects of heterogeneous Asian languages enrolled in a university preparation course in US in a small-scale classroom based study. During the study two groups received a traditional instruction on literal, inferential and critical comprehension questions, while the other received a text-strategic training on the regularly assigned textbook for a period of 16-weeks. The results showed that the strategic approach group had a significantly higher post-test score than the groups that received the traditional training. The study indicates that in the second language classrooms teachers can have an effect using strategic training working within regular language courses.

Another study that examined if strategy training enhances L2 reading was carried out by Carrell et al. (1989). In this study subjects consisted of a heterogeneous group of 26 ESL students enrolled in a level 4 intensive ESL program at a university in US. Two experimental groups were formed of which one received the semantic mapping training and the other received the ETR training. A control group received no strategy training, but participated in pre- and post-test. The total duration of training for each group was four days. The study showed that strategy training improved reading comprehension scores of the treatment group subjects. This made Carrell et al. (1989) conclude that second language reading pedagogy, especially for adult students in

academic ESL settings, would benefit from explicit, comprehension-fostering metacognitive strategy instruction.

Other than investigating if metacognitive training has an impact on readers' reading comprehension, researchers involved in metacognitive training also explored if the success of instruction differs depending on ability level. For instance, Kern (1989) conducted a study to determine the effect of strategy instruction on the reading comprehension and inferential ability of third semester French students studying at a university in US. The study also aimed to determine whether the instruction was differentially effective depending upon second language reading ability. For the purposes of the study, the subjects were categorized as low-, mid-, or high-ability level based on the test scores. The 26 treatment group students received explicit instruction in reading strategy use on strategies of word analysis, the recognition of sentence and discourse cohesion in addition to the normal course content. On the other hand, the 27 control group students received no such explicit instruction in reading strategies but covered the same course material. The results showed that the strategy-training group obtained a statistically higher gain on comprehension measure than the control group. Moreover, it was found that there was a statistically significant difference in comprehension gain between the strategy-training group and the control group subjects within the low-ability level. However, this was not found for the middle-or high-ability levels, although the middle ability training group gain score was almost three times that of middle-ability control subjects. For the inference measure, the strategy-training group showed a significantly higher gain than the control group but there were no differential effects based on ability level.

In all of these adult L2 studies, significant positive effects were found for the strategy training when compared with control groups or traditional approaches to instruction.

These studies constitute seminal work that laid the groundwork for understanding the effect of metacognitive reading strategy instruction. However, they are restricted in that they only examine the effects from mostly quantitative results. They did not attempt to understand the changes in students' awareness and regulation of strategy use within a qualitative research framework.

Despite their limitations, insights from these studies have been useful for reading teachers in enabling L2 readers to become strategic readers. Auerbach and Paxton (1997), for example, designed a qualitative intervention study to apply findings of such studies to classroom practices. The study aimed at helping students explore their own L1 and L2 reading strategies and to develop decision-making processes for selecting and monitoring the use of strategies. The students, 20 in number, were part of an undergraduate ESL Course that was facilitated over one semester with four hours of instruction per week at a university in US. Students were given individual assessments at the beginning and end of the course through think-aloud protocols. Students' initial reading strategies, conceptions and feelings about reading, and reading histories were also examined at the start of the course. During the course students kept journals and strategy logs, took tests and quizzes, wrote research papers about how their reading had changed during the course and participated in interviews. The study showed several changes in most of the students' reading strategies. For instance, students had increased the number of strategies they drew from, and used meaning-centered rather than word-centered strategies. Moreover, students recognized that there was no single strategy or set of strategies that worked. Furthermore, they became critical in their evaluation of strategies and developed growing conditional knowledge regarding when and why to use the particular strategy. Overall, the study shows a possible approach to developing metacognition in concert with strategies in

adult ESL learners. It also represents a departure from the quantitative focus of the earlier studies. However like other earlier studies discussed above, this study was also conducted in US probably because of the 'Western legacy' of metacognitive reading strategy instruction (Zhang 2008: 110).

Recently, however, metacognitive reading strategy instruction appears to have received academic attention in the 'East' as well. For instance, Zhang (2008) conducted two-month strategy-based reading instruction at a tertiary institution in Singapore. The participants of the study were young ESL adults from China who were required to take the English-for-academic-purposes (EAP) courses. The study had quasi-experimental design and involved a control group and an experimental group. The control group comprised of 49 students while the experimental comprised of 50 students. The study investigated students' understanding of reading, their willingness to be engaged in strategic reading and the effect of instruction on reading performance. In the study, Zhang integrated clusters of reading strategies in the reading curriculum to enrich students' metacognitive knowledge and self-regulation of reading strategies. The results of the study showed that teachers' instructional intervention affected changes in the ESL students' use of reading strategies and improvement in comprehension within a period of two months. The study also showed that the students did not resist the instruction and responded well to it even though they belonged to a culture where reading strategies were never taught. This made the writer conclude that 'reading teachers, working from an understanding of the prior learning culture of these students, can teach reading strategies' (ibid.: 12).

Another study that provided instruction to students in the East was conducted by Kim and Cha (2015). The study assessed qualitatively the changes instruction brought about in students' metacognitive regulation during reading. In their study Kim and

Cha provided metacognitive reading strategy instruction to 4 Korean university students for 15 weeks. They used think-aloud protocols for data collection and instructional purposes. Results of the study showed marked changes in the frequencies of students' regulation processes over time. Moreover, the study showed that students used strategies in more flexible and orchestrated manner as compared to the start of the study. The study, though, departed from the majority of studies that mainly focused on quantitative outcomes with respect to changes in metacognitive awareness and use of reading strategies, it only focused on changes in adult ESL students' regulation of cognition.

In sum, it can be seen from the above review that a growing body of research shows that metacognitive reading strategy instruction is beneficial. However, as mentioned earlier, most of these studies offer only a partial view of students' experience of metacognitive reading strategy instruction by mostly centering on the quantitative outcomes of this form of instruction. The current study explores qualitatively the impact of metacognitive reading strategy instruction on students' awareness, use and regulation of reading strategies. In addition, instead of pre-supposing an a priori list of teaching practices and taking for granted the students in the lessons, this study seeks to understand the teaching practices that could be appropriate in the context of an ecologically valid ESL classroom setting. For this purpose, it adopts an AR methodology that has not been utilized during metacognitive reading strategy instruction at tertiary level so far. Consequently, it deviates from the majority of metacognition research in L2 higher education setting by taking into account the needs of the students and the context during metacognitive reading strategy instruction. Arguably this provides a more holistic and nuanced depiction of what goes on in the real classroom during metacognitive reading strategy instruction as

compared to the previous studies. Moreover, this study focuses on Pakistani ESL university level students who have not been afforded such an instruction to date as mentioned in Chapter 1.

3.2.7 Instructional practices for metacognitive reading strategy instruction

As the importance of metacognition for reading became evident, researchers began to list the features of effective metacognitive strategy instruction to assist teachers in enhancing metacognitive awareness and regulation of reading strategies in students. A key feature of effective metacognitive strategy instruction that virtually all the literature has placed an emphasis on is 'explicitness' in strategy training (O'Malley et al. 1985; Garner 1987; Butler & Winne 1995; Oxford & Leaver 1996; Hudson 2007; Baker 2008a; Cohen 2011). Many researchers regard explicit instruction as vital to fostering metacognition and reading comprehension in students because students 'may have many misconceptions about the nature of reading and incomplete awareness of reading strategies, or of executive processes for monitoring and regulating comprehension' (Carrell 1998b: 9). It has been shown that explicit instruction provides students with awareness of aspects related to strategic processing (Almasi 2003). Studies have also suggested that explicit metacognitive instruction in strategies can increase students' reading comprehension (Baker 2002; Duffy 2002).

Drawing on Vygotsky's sociocultural theory (see Section 3.2.1), during explicit instruction to facilitate and mediate learning, researchers have carefully structured the instructions to provide what Wood et al. (1976) have called 'Scaffolding' – the help the practitioners offer to learner to 'solve a problem' as well as 'to develop their willingness and metacognitive ability to think through the problem for themselves' (Ushioda: 2014: 43). During explicit instruction, as in other formal and informal

learning settings, scaffolding is provided largely through talk and language. This can be seen from the components of explicit instruction that involve teacher explanation, modelling or think alouds of what, how, when, and why a strategy is used (i.e., declarative, procedural and conditional knowledge); and guided and independent practice (Fielding & Pearson 1994; Pearson & Dole 1987) (for details regarding utilization of these components of explicit instruction to provide scaffolding to students in this study see Chapters 5, 6 and 7).

The literature regards providing an explanation of the declarative, procedural, and conditional knowledge associated with using a strategy or set of strategies as essential during instruction (Paris et al. 1983). In essence, explanations make the covert thought processes that normally occur during fluent reading overt (Almasi 2003). Highlighting the importance of explicitness in instructor explanations, Duffy et al. (1983) noted that it produces student awareness, which in turn stimulates student achievement. Roehler and Duffy (1984: 266) point out:

> …teacher explanations of the processes are designed to be metacognitive, not mechanistic. They make students aware of the purpose of the skill and how successful readers use it to activate, monitor, regulate, and make sense out of text, creating in students an awareness and a conscious realization of the function and utility of reading skills and the linkages between these processes and the activities of reading.

Winograd and Hare (1988) delineated what effective explanations about reading strategies should in fact explain, drawing upon the work of a number of other L1 instructional researchers. They proposed the following five elements as constituting careful and complete teacher explanation of a reading strategy: 1) What the strategy is; 2) why the strategy should be learned; 3) how to use the strategy; 4) when and

where the strategy should to used; and 5) how to evaluate use of the strategy. It may have not escaped the reader's notice that these five elements are related to the three components of metacognitive knowledge. That is, teacher explanation of 'what the strategy is' addresses declarative knowledge; teacher explanation of 'how to use the strategy' addresses procedural knowledge; and teacher explanation of 'why the strategy should be learned', 'when and where' to use the strategy, and 'how to evaluate' its use all address conditional knowledge. Ten years later, these elements were highly recommended by Carrell (1998a) who in her landmark paper reviewed several effective L2 reading strategy training studies. She argued that these studies obtained positive results because they included some or all of the five metacognitive aspects of strategy use. Later, other L2 researchers also included most of these elements during L2 training studies (e.g. Chamot et al. 1999; Oxford 2001; Zhang 2008; Cohen 2011).

As part of explicit instruction, researchers also recommend that teachers model the use of strategies (Baker 1994; Collins & Smith 1982; Pearson & Dole 1987; Pressley et al. 1994). In reading research the terms teacher modeling and think aloud are mostly used interchangeably since 'teacher think-aloud is typically conceived of as a form of teacher modeling' (Duke & Pearson 2002: 214). Think aloud is defined as a 'metacognitive technique or strategy in which a teacher verbalizes thoughts aloud while reading a selection orally, thus modelling the process of comprehension' (Harris & Hodges 1995: 256). Think aloud can be used as an instructional tool to scaffold comprehension awareness (Massey 2003). As a pedagogic tool, think aloud enables teachers to demonstrate to students how to select appropriate comprehension strategies at particular points during reading (Block & Israel 2004). Moreover, it shows students' metacognition in action as the teacher considers loudly which

strategy to select to solve a comprehension challenge (Nokes & Dole 2004). It seems relevant to mention here that the use of think aloud as pedagogical demonstration is different from using think aloud as a data gathering tool (for details regarding use of think aloud as a research method see Section 4.2.3).

Research reveals that teacher modeling is particularly considered helpful for struggling readers who are often unaware of how and when to use strategies (Garner 1987). Duffy et al. (1986) found that the more explicit teachers were in modeling strategy instruction, the more students were able to develop and sustain metacognitive skills. Pressley et al. (1992b: 24) state that 'what good strategy instructors do by modeling and explaining strategies is to provide a foundation on which students can expand, without which there are real dangers of instruction progressing slowly, poorly, or not at all'. In L2 literature, many studies that have used TAP for strategy training had positive effects on learners (e.g. Hudson 1998; Carrell et al. 1989; Rasekh & Ranjbary 2003).

Teachers during modeling often describe the strategy they had used; explain the procedural knowledge or how they performed the strategy as well as the conditional knowledge or why the strategy was helpful or important (Almasi 2003). Hudson (2007) provides eight steps that he adapted from Wilhelm (2001) in using think aloud techniques to teach strategies. These steps are: 1) Choose a short section of text; 2) Decide on a few strategies to be highlighted; 3) State the purposes; 4) Read the text aloud to the students and think-aloud as it is read; 5) Have students underline the words and phrases that appear in the strategy; 6) List the cues and strategies used; 7) Ask students to identify other situations in which they might use the strategies; and 8) Reinforce the think-aloud with follow-up lessons and phases.

Guided practice, the next component of explicit strategy instruction, provides opportunities for teachers and students to practice using strategies during reading (Fielding & Pearson 1994). It also provides students with opportunities to assess and evaluate their own strategy use (Almasi 2003). During guided practice students can work individually enlisting help from the teacher when needed. Alternatively, students can practice the use of strategies in small groups and can provide scaffolding and feedback to each other (Rosenshine 1997). Some researchers think that it is critical to allow students to work in groups during guided practice (Nokes & Dole 2004).

One way of providing guided practice to students is to include student verbalization of strategy use during metacognitive reading strategy instruction. Like teacher verbalization, student verbalization can take the form of think aloud (Almasi 2003). Oster (2001) states that teachers use think aloud as an instructional practice to help students verbalize their own cognitive processing. Student think aloud tends to significantly increase students' self-assessment of their reading and enables them to select strategies to overcome the problems in comprehension during reading (Oster 2001; Block & Israel 2004). It also allows 'struggling readers to participate in common classroom experience and thereby become more engaged' (Israel & Massey 2005: 186). Research has indicated that the comprehension and achievement of those students who are taught to verbalize their reading processes are significantly greater than those who did not receive such opportunities (Almasi 2003). When student think aloud is generated during whole class discussion or small group peer discussion, it provides students with an opportunity to learn about different ways in which students use strategies to comprehend text (Goatley et al. 1995). It also gives students an opportunity to observe their peers cognitive processes before trying to accomplish similar strategies on their own (ibid.). Schunk (1989) states that students provide

better models than teachers. Most of the research findings related to facilitative effect of think aloud and student collaboration are from research studies that were carried out in L1 reading settings. Moreover, 'most of the studies that examined the effects of think-aloud involve subjects reading individually and carried out in isolation away from the classroom context' (Seng 2007: 29). The only study I have been able to find in the L2 literature that showed that student collaboration during think aloud could be an effective instructional technique in helping students improve their reading was carried out by Seng (2007). This study had a quasi-experimental design and examined the effects of collaboration during think aloud on adult L2 students' reading performance.

Some researchers have also developed an instructional aid or a tool that they utilize during explicit instruction. For instance, Schraw (1998) developed a tool called 'strategy evaluation matrix' (henceforth SEM) to improve knowledge of cognition in his students. He reports that his former students had also used the tool and anecdotal reports from them have indicated that they found it effective. The aim of the SEM (see Table 3.1) is to promote explicit declarative knowledge (column 1), procedural knowledge (column 2), and conditional knowledge (columns 3 and 4) about each targeted strategy. Schraw (1998: 119) states that the basic idea behind using the SEM is to 'ask students, either individually or in a group, to complete each row of the matrix over the course of the school year'.

Table 3.1 Strategy evaluation matrix (Schraw 1998: 120)

Strategy	How to Use	When to Use	Why to Use
Skim	Search for headings, highlighted words, previews, summaries	Prior to reading an extended text	Provides conceptual overview, helps to focus one's attention

Schraw (1998) developed another tool called the 'regulatory checklist' (henceforth RC) (see Table 3.2) to facilitate regulation of cognition in students. The RC is modeled after the problem solving prompt card used by King (1991) who grouped the questions in his tool into three metacognitive categories namely, planning, monitoring and evaluation. Schraw (1998) states that the RC enables learners implement a systematic regulatory sequence to help them control their performance. He did not propose how this tool could be used during teaching.

Table 3.2 Regulatory checklist (Schraw 1998: 121)

Planning
1. What is the nature of the task?
2. What is my goal?
3. What kind of information and strategies do I need?
4. How much time and resources will I need?
Monitoring
1. Do I have a clear understanding of what I am doing?
2. Does the task make sense?
3. Am I reaching my goals?
4. Do I need to make changes?
Evaluating
1. Have I reached my goal?
2. What worked?
3. What didn't work?
4. Would I do things differently next time?

Other than Schraw, Aurebach (personal communication, August 18, 2015) developed an instructional tool called 'strategy log' (henceforth, SL) that was utilized during the Auerbach and Paxton's (1997) study discussed in Section 3.2.6.3. The SL (see Figure 3.1) was developed to provide students an opportunity to independently practice the targeted strategies as well as to critically evaluate how the strategy shaped their reading of a particular text during explicit instruction.

1. Name of strategy:

2. Description of what you did: What was the text you used this with? What kind of text was it? How did you use this strategy? What did you do?

3. Effect of strategy: What was your reaction to this strategy? How did it work for you? Did it seem to help? Why or why not? Describe the effect of using this strategy on your speed and on your comprehension. How do you feel about this strategy? Would you try it again? If so, would you do it differently? Why or why not?

Figure 3.1 Strategy log (Auerbach and Paxton 1997: 246)

Although explicit strategy instruction is considered useful by majority of the researchers, some researchers debate whether comprehension strategies should be taught directly (Keene & Zimmerman 2007). This is so since research does indicate that some students can learn reading strategies without direct instruction (Block & Duffy 2008). This could probably be achieved 'merely by reading a lot' (Block & Duffy 2008: 23). However, research also indicates that merely reading more text does not enhance students' comprehension (Pressley et al. 1998). Rather, use of even one of the reading strategies improved comprehension (ibid.). Some researchers such as Poplin (1988) also criticize strategy instruction on the grounds that it prefers the learners to be passive recipients of instruction as the instruction flows from the teachers to students. In response to this criticism the proponents of reading strategy research have asserted that not all strategy instruction is unidirectional and mechanistic (e.g. Pressley et al. 1992b). Keeping Poplin's criticism in view, in this study I actively involved students during explicit strategy instruction (see Chapters 5, 6 and 7). I also adapted and enriched the above discussed instructional practices to address the needs of my students (for details see Section 7.1.1). Before presenting the

analysis of the lessons that facilitated metacognitive reading strategy instruction, in the next chapter I will explain how the study was carried out.

Chapter Four

Research Methodology

This chapter provides the methodological framework within which this study operates. It first discusses the AR tradition in which the study is rooted and also justifies qualitative AR as the most appropriate approach for this study. Recognising that issues of quality and ethics are important for any research, the chapter next addresses these issues in relation to this study. Following this, Chapter 4 provides details of the data collection methods and data analysis process. The chapter concludes by discussing some of the limitations of the study.

4.1 Research tradition: Action research

4.1.1 Definition and characteristics

AR is a form of 'disciplined enquiry' (Calhoun 1994) that simultaneously focuses 'on action and research' (Burns 2005a: 58). The *action* component of AR is 'located within the ongoing social processes of particular societal contexts, whether they be classrooms, schools or whole organizations' (Burns 2009: 289-290) and usually 'involves participants in a process of planned intervention, where concrete strategies, processes or activities are developed within the research context' (Burns 2005a: 58). On the other hand, the *research* element of AR 'involves the systematic collection of data as planned interventions are enacted, followed by analysis of what is revealed by the data, and reflection on the implications of the findings for further observation and action' (Burns 2005a: 59). AR is undertaken in response to a perceived problem, puzzle or question to ‘bring about improved practices, as part of the research process’ (Lomax 1995: 50). In the AR community there is a general agreement that AR is

about ‘taking action to improve practice, and finding things out and coming to new understandings, that is, creating new knowledge’ (McNiff & Whitehead 2012: 10). AR is generally aimed at enhancing and improving understanding, improving practice (McNiff & Whitehead 2012; Richards 2003; Nunan 1992); influencing others’ learning (McNiff & Whitehead 2012); bringing about improvement and change (Kemmis & McTaggart 1988; Richards 2003) and generating new knowledge to feed into new theory (McNiff & Whitehead 2012). For the majority of researchers *involvement* and *improvement* stand shoulder to shoulder in an AR study (e.g. Carr & Kemmis 1986; Richards 2003). However, in Nunan's (1992: 18) view AR is not necessarily 'concerned with change.' For him ‘a descriptive case study of a particular classroom, group of learners, or even a single learner counts as action research’. However, in the same text he does add that 'I know of a few such studies which have not resulted in change of some sort' (ibid.).

A defining characteristic of AR is that it is 'practitioner driven' (Nunan & Bailey 2009: 227). It is 'undertaken by participants in social situations' (Kemmis & McTaggart 1988: 1) and is therefore regarded as 'a form of practitioner research' (Borg 2010: 394). On the part of language teachers, AR has been seen as a way to 'bridge the gulf between researchers and teachers and to encourage teachers to adopt an investigative stance towards their own classroom practices' (Burns 2009: 290). Inclusion of teachers in the enterprise of research is regarded as the strength of AR since teachers are more involved in and experienced with their contexts than outside researchers (Burns 1999). Richards (2003: 9) contends that ‘as practising teachers, we operate in a professional context…where we can draw strength from our shared understandings and experiences’. Since AR is 'conducted by and in cooperation with teachers’ (Dornyei 2007: 191), it is identified as a form of teacher research. Borg

(2010: 393) argues that ‘action research (when conducted by teachers) is also teacher research’. The literature indicates that teacher research is a form of systematic inquiry that is carried out 'by teachers in their own professional contexts' (Borg 2010: 393).

Another salient characteristic of AR is its reflective nature. Reflection is ‘dynamic’ in AR and happens from the start of the process (Burns 2010a: 141). In fact, reflection ‘flavours and moulds the whole AR experience’ for action researchers (ibid.). The literature indicates that AR is ‘part of the general 'reflective teacher' movement’ (Burns 2010a: 17). However, it ‘takes the possibilities for reflection-in-action and reflection-on-action further into the realms of research’ (ibid.).

The literature generally describes AR as ‘participatory’, ‘democratic’ (Carr & Kemmis 1986: 164; Elliott 1989: 83-84) and ‘collaborative’ (McNiff & Whitehead 2012: 32; Burns 1999: 13). However, some researchers (e.g. Nunan 1992; Wallace 1998) foreground a more individualistic rather than collaborative view of AR. According to Nunan (1992: 18) though collaboration is 'highly desirable,' it is not the ‘defining characteristic’ of AR. The reason, he points out, is that teachers 'are either unable, for practical reasons, or unwilling, for personal reasons, to do collaborative research' (ibid.).

In language teaching the major goals of AR are considered to be investigating curriculum change or innovation (Lotherington 2002); addressing and finding solutions to problems in a specific teaching or learning situation (Wallace 1998); and enhancing the development of teachers’ personal practical theories (Golombek 1998). Overall, the general goals achieved by practitioners through AR to date lie in the ‘realms of personal and/or professional action and teacher growth rather than in the production of knowledge about curriculum, pedagogy or educational systems’ (Burns

2005a: 63). This extensive focus on professional action and growth in the studies of the past has been beneficial but also has limitations (Burns 2005a: 63). This study therefore aims to focus on both action and research. That is, it aims to produce knowledge about promoting metacognition in an ESL reading class in a higher education context in Pakistan using AR methodology.

4.1.2 A brief background

Historically speaking, AR is located within a 'quiet methodological revolution' (Denzin & Lincoln 1998: vii) towards qualitative, interpretive and participative research paradigm that took place in the first part of the 20th century to contest the dominant positivist, scientific, and quantitative paradigm (Burns 2005b).

The roots of AR in educational research are found in the work of John Dewey who argued against the separation of theory and practice (Burns 2005b). However, the social psychologist, Kurt Lewin who encouraged ordinary people to engage in making enquiries about their own lives as a way for improving them, is widely regarded as the 'father' of AR (Marrow 1969; McNiff 1988; McTaggart 1991; Adelman 1993). Lewin regarded 'theory and practice as dialectically related, with theory being developed and tested by application in and reflection on practice' (Carr & Kemmis 1986: 44). Today, AR is used in the field of education, applied linguistics, industry, health care, business and management, social work and environment (Burns 2005b).

4.1.3 Approaches to action research

Over the years AR has evolved through three major conceptual and interpretative approaches, namely, technical-scientific, practical and critical-emancipatory (Burns 2005a, 2005b). Each of these approaches or types of AR is based on different research

paradigms. Therefore, as indicated by McNiff and Whitehead (2012) they differ in their ontological stance concerning ‘the nature of our beliefs about reality’ (Richards 2003: 33) and epistemological stance associated with ‘the nature of knowledge and the relationship between knower and known’ (Richards 2003: 35). This section will discuss these AR approaches in relation to this study. It will also clarify the AR approach taken by this study. However, before discussing the AR approaches it seems important to define what a paradigm is.

The use of the term 'paradigm' has its basis in Kuhn's (1962) analysis of science. Kuhn describes paradigm as a theoretical or experimental model that guides the practice of individual scientists. For Kuhn, paradigms are exemplars of scientific practice (Wendel 2008). This use of the term paradigm is considered inappropriate outside of science (Kuhn 1962). In social science approaches to research the term paradigm has a slightly different meaning (Wendel 2008) as it is associated with more individual interpretation of knowledge. This study uses this meaning of paradigm referred to in social sciences (Modelski & Poznanski 1996) and educational research (McNamara 1979). Thus, in this study paradigm refers to 'basic belief system or world view that guides the investigation' (Guba & Lincoln 1994: 105). The paradigm, according to Guba and Lincoln (1994: 107) 'defines, for its holder, the nature of the 'world', the individual's place in it, and the range of possible relationships to that world and its parts'. Since paradigm is considered to be the intellectual foundation of a research stance, no researcher could go about doing research without being aware of the paradigm that informs or guide his/her approach (Guba & Lincoln 1994: 116).

4.1.3.1 Technical-scientific action research

Technical-scientific AR has its basis in the natural sciences and draws on scientific and quantitative methods (Corey 1949). It works from the paradigmatic stance of positivism. Therefore, in keeping with positivist paradigm technical-scientific AR views knowledge as deductive; reality as measureable and objective and the purpose of research to uncover underlying laws of reality (Burns 2005a). That is, it views the world as governed by laws and behaviour that scientific methods such as survey methods or experimental methods represent and measure. Since the paradigm it works from assumes an objective world, this type of AR tries to minimize the influence of researcher in research by making the researcher stay out of the research so as not to 'contaminate' data. This, as believed by proponents of positivist paradigm, results in an accurate, reliable, objective and value-free description of the world. However, as argued by critics in its attempt to achieve objectivity, the positivist paradigm strips context from meaning and excludes members' meaning and interpretation from data (Guba & Lincoln 1994: 106). That is, it imposes outsiders' meaning and interpretation on data (Gephart 1999). Also, it excludes discovery from the domain of scientific inquiry (ibid.). In addition, it does not represent specific social groups or allow understanding of individual cases as it uses statistical measures to discover the world. Hence, as noted by the critics it views humans as 'machines' or 'data' (McNiff & Whitehead 2012). Moreover, stringent critics of the positivist paradigm are of the opinion, and I concur, that rational research is a myth (Thomas 1998) and objectivity is unattainable. And even if it attainable some critics ask 'what is so special about objectivity anyway' (McNiff & Whitehead 2012: 46). Moreover, critical neo-marxist researchers argue that the view this paradigm supports reproduce capitalist structures, inequality and oppression by serving particularistic and elite interests. Since technical-scientific AR works from positivist paradigm it is not appropriate for this study as

discovery and members' meaning is central to this research. As noted earlier, this study aims to focus on individual and contextual interpretations of the phenomena (i.e. promoting metacognition of reading strategies in students in a higher education ESL context). Also, the teacher-researcher plays an active role in this research by being an insider to the study.

4.1.3.2 Critical-emancipatory action research

In contrast to technical-scientific AR, critical-emancipatory AR, draws on critical, constructivist and dialectical methodologies (Carr & Kemmis 1986; Kemmis & McTaggart 1988). Critical-emancipatory AR views knowledge as inductive, participatory and emancipatory; and reality intertwined with social and political power structures (Burns 2005a). In addition, it views research as non-neutral and defines reality in relation to emerging values (ibid.). Furthermore, in keeping with critical paradigm in which this type of AR is based, it tries to understand and uncover what hinders democratic and equal practices. Also, it seeks to challenge taken for granted social structures, beliefs and values to bring about social transformation and change. For this purpose, it encourages self-conscious criticism and emancipatory consciousness in scholars (Kincheloe & McLaren 2002). Although the aim of the study is to bring about change, critical-emancipatory AR is not an aspiration of this study since it does not aim to explore, understand or challenge problems related to power, inequality or oppression.

4.1.3.3 Practical action research

This study took practical AR as its main approach since it fits the interpretive paradigm where the study is primarily rooted. The practical AR philosophical base is in hermeneutics i.e. it seeks to interpret things. Unlike technical-scientific AR,

practical AR rejects the notion of single external measureable reality. That is, it views reality as 'multiple, holistic and constructed' (Burns 2005a). In addition, it views knowledge as inductive and theory producing (ibid.). This is so since the interpretive paradigm it works from assumes that knowledge and meaning are acts of interpretation or the result of perspective. Hence, there is no objective knowledge which is independent of thinking, reasoning humans. Therefore, practical AR focuses on context specific problems and offers ways to understand members' own meanings. Since, this type of research holds that people create their own meaning in interaction with one another and with the world around them, the purpose of practical AR is to understand the phenomena through accessing the meanings that participants assign to actions (Burns 2005a). Therefore, it is value-bound and dependent on people involved (ibid.). As stated above, the paradigmatic stance of practical AR suits this study since it is interpretive in aspiration. Therefore, with regard to the ontological stance (see definition in Section 4.1.3), in this study I assume that the same phenomenon or event can be viewed or interpreted from different perspectives by research participants as well as the researcher. In line with this ontological stance, I emphasis the participants' own interpretation of their actions and complement these with my own understandings. In terms of epistemological stance (see definition in Section 4.1.3), I adopt a more 'subjectivist' stance that views knowledge as created through interaction between the world and the individual (Richards 2003: 33). In this study, therefore, I recognise that there is an interactive relationship between me as a teacher-researcher and my research participants. Thus, the perspectives of the participants influenced my understandings of the phenomena in this study.

4.1.4 Action research for improvement of learning/context and production of knowledge

As noted earlier, this study is motivated by the desire to improve students' reading by promoting metacognition of reading strategies in a university context in Pakistan. In addition, it aspires 'to produce knowledge that will be useful to other educators' (Somekh & Zeichner 2009: 10). With respect to Zeichner (2007 cited in Somekh & Zeichner 2009) the analytic framework that he presented on dimensions of variations in AR, these aims illustrate the first and second of Noffke's (1997) three motivations for educators who conduct AR. In terms of the contextual conditions for AR, according to the framework this study is conducted alone by the teacher-researcher. Furthermore, although it investigates a single phenomenon i.e. promoting metacognition on reading strategies the study focuses simultaneously on multiple research questions (Gallas 1998 cited in Somekh & Zeichner 2009) since metacognition consists of two components, namely metacognitive awareness and metacognitive regulation (for details on the components of metacognition see Section 3.2.4).

4.1.5 Action research processes

While in the previous sections I introduced the notion of AR and its relation to this study, in this section I will outline the stages of the AR framework proposed by Kemmis and McTaggart (1988). Burns (2005a) points out that the best known version of Lewin's model of the AR process amongst the available versions is that of Kemmis and McTaggart (1988). According to Kemmis and McTaggart (1988: 276) the process of AR involve 'a spiral of self-reflective cycles of the following four essential movements: **planning → action → observation → reflection'** as shown in diagrammatic form in Figure 4.1.

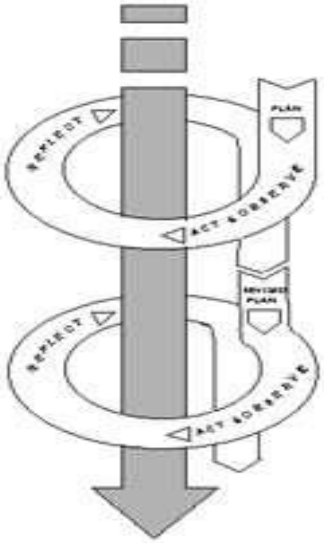


Figure 4.1 The action research spiral

More specifically, as noted by Burns (2005a) the model of Kemmis and McTaggart (1988) involves a planning stage which is forward looking and recognizes real constraints and potential for more effective action. The planning stage is followed by the action stage that consists of deliberate, controlled and critically informed intervention towards improvement. The next stage, namely observation, is responsive. It details and evaluates the intervention, its effects using 'open-eyed' and 'open-minded' observation plans, categories and measurements. The last stage of the cycle, reflection, as the name suggests is evaluative and descriptive. It aims to develop perspectives and comprehension of the processes, problems, issues and constraints of action and the circumstances in which it arises (Burns 2005a: 59). Kemmis and McTaggart (1988) applied Lewin's idea of AR to education and encouraged the use of term 'educational action research' along with Wilf Carr (McNiff 2002: 26). However, their model of AR was criticized on several grounds. Firstly, for over-representing action as a series of fixed and predictable steps (Elliott 1991) since the actual processes of AR are usually more complicated than the linear way this model presents them. Secondly, for supposing that ‘life goes along only tack at a time, forgetting that

related but dissimilar problems will arise and oust the main focus' (McNiff 2002: 28) and thirdly, for representing in a prespecified way what is essentially intended to be free and open courses of action (Hopkins 1993). In relation to this, Burton and Bartlett (2005: 39) also states that the AR diagrams 'that indicate stages in a research cycle may encourage the view that these are the 'correct' order in which to conduct action research. Following the criticism, Kemmis and McTaggart (2000: 595) stated that the process of AR in reality ‘may not be as neat as this spiral of self-contained cycles of planning, acting, observing and reflection suggests'. It is ‘fluid, open and responsive’ since the stages of the AR cycle overlap and the initial plans change in the light of learning from experience (ibid.). Kemmis and McTaggart (2000: 595) further point out that the criterion of success is not whether the steps have been followed 'faithfully' by the participants or not, rather it is whether the steps lead to a strong and authentic sense of understanding of the practices, development and evolution in the practices and the situation in which the participants practice.

4.1.6 An action research process for this study

This study uses the AR framework proposed by Burns (1999). Burns (1999: 35) in her detailed framework of AR describes eleven identifiable and interactive ‘interrelated experiences’ or stages that teachers she worked with in Australia went through. Although Burns has clearly defined in her model the stages of AR, she acknowledges that 'action research should be seen as flexible' (1999: 35) since in practice AR is much 'messier than represented by most models' (2005a: 59). She also points out that the processes of AR are 'adaptive to the educational situations and circumstances of the participants and to the particular social, cultural and political exigencies that motivate and surround them' (ibid.: 59). Therefore, researchers need to 'make their own interpretations of what are appropriate processes for the circumstances of the

research' (Burns 1999: 35). Burns' sensitivity towards the context of the research and the possibility of flexibility and fluidity in the model made me feel that the model of AR proposed by Burns (1999) would enable this study to proceed. I therefore choose her model for this study.

Burns (1999) describes her AR framework of series of eleven interrelated practices or experiences as:

1. Exploring: feeling the way into the research topic. It involves identifying issue of interest and documenting general observations of the situation to get clarity about the issue or problem.
2. Identifying: fact finding to refine the topic and to prepare for more systematic investigation. At this stage researcher records broad observations related to the research area to clarify the nature of situation and to suggest further action.
3. Planning: drawing a viable action plan for gathering data. It also involves selecting appropriate research methods.
4. Collecting data: developing and putting into action the procedures selected for data collection.
5. Analysing/reflecting: analyzing data systematically to produce early reflections.
6. Hypothesising/speculating: drawing hypotheses about the likely outcome(s) of the action based on the data collected so far.
7. Intervening: changing classroom practices in response to the hypothesis one has formed.
8. Observing: reflecting on the outcomes of the intervention.
9. Reporting: verbalising and theorising the results and findings of the research.
10. Writing: documenting accounts of the research.

11. Presenting: giving presentations on the research.

In this study the stages one to six, namely exploring, identifying, planning, data collection, analysing / reflecting and hypothesising / speculating are reported in the initial investigation stage of the study as they happened simultaneously (see Section 5.1). The stages seven to eleven, namely, intervening, observing, reporting, writing and presenting are reported in the intervention stage of the study.

4.1.7 Evaluating the quality of action research

The quality of AR has been questioned because 'it is generally qualitative in nature' (Burns 1999: 78) and qualitative research approaches are 'inherently subjective, interpretative as well as time- and context-bound' (Dorneyi 2007: 54). That is, in a qualitative inquiry 'truth' is relative and the interpretation of the data depend upon the researcher's perception and ability. A novice action researcher can therefore feel concerned about the validity and reliability of their research (Burns 2009). However, such concerns are misplaced since the literature indicates that 'the notion of validity in the sense that is applied in experimental research is problematic in action research' (Burns 1999: 160). In other words, in qualitative AR any attempt to attain 'validity' and 'reliability' as defined in a quantitative research, is to 'misinterpret the aims and goals of action research' (Burns 1999: 161). This is so since the quality of qualitative research needs to be evaluated using different concepts from those of positivist research as discussed below.

With regard to qualitative research, Dorneyi (2007: 49) points out that many current qualitative researchers deny the relevance of the concepts of 'validity' and 'reliability' as defined in quantitative terms'. These researchers suggest to abandon the conventional ways of judging the quality of research (Denscombe 2010). This

indicates a shift in qualitative researchers views as the 'early qualitative researchers felt compelled to relate traditional notions of validity and reliability to the procedures in qualitative research' (Creswell 1994: 157). That is, as qualitative approaches became more common in research, researcher realize that the quality of qualitative research needs to be assessed using concepts more suitable to qualitative inquiries. In more detail, qualitative researchers working in naturalistic paradigm realized that 'forms of knowing and discovering other than the rationalistic are necessary when we attempt, not to dominate our physical environment, but to understand human beings' (Edge & Richards 1998: 336). Thus, to introduce quality criteria more suitable for qualitative inquiries attempts have been made in the literature to propose alternative concepts and terms. For instance, in the literature 'internal validity' has been referred to as 'credibility', 'external validity' as 'transferability' and 'reliability' as 'dependability' (Edge & Richards 1998: 345).

The literature indicates that the qualitative researchers cannot prove in any absolute way that their data are accurate and appropriate (Lincoln & Guba 1985). Therefore, 'the type of 'truth' which is appropriate to demand of naturalistic inquiry is that it be a credible version of what happened, both in terms of description and interpretation' (Edge & Richards 1998: 345). The credibility of qualitative research could be enhanced through triangulation and respondent validation (Denscombe 2010). As for transferability, Edge and Richards (1998: 345) points out that 'naturalistic inquiry will not deliver a generalization which can be abstracted and 'applied', instead it seeks to produce understandings of one situation which someone with knowledge of another situation may well be able to make use of'. In qualitative inquiry, the question therefore becomes 'To what extent *could* the findings be transferred to other instances?' rather than 'To what extent *are* the findings likely to exist in other

instances?' (Denscombe 2010: 301, emphasis in original). To enable others to infer the applicability of the findings, the researcher should provide rich description and interpretation of the data (Edge & Richards 1998: 346). Regarding dependability, in qualitative studies it 'is not a matter of replicability' rather it accounts for the inevitable changes in the processes of the research (Edge & Richards 1998: 345). Dependability in qualitative studies is operationalized by documenting the records of reflection and decision making for two purposes. First, to justify the decisions made and conclusions reached in the research. Second, to allow other researchers to reconstruct the steps of the research process. In addition, it allows other researchers to evaluate the procedures and decisions taken during the study to decide 'how far they constitute *reputable procedures* and *reasonable decisions'* (Denscombe 2010: 300, emphasis in original).

Like other qualitative approaches, AR needs to address the paradigmatically appropriate concepts of credibility, transferability and dependability for conducting and presenting a trustworthy research. To ensure the good quality of their research, action researchers need to provide evidence of the claims they make. Internal validity in AR asks the question 'How trustworthy are the claims that the outcomes are related to the experimental treatment? In other words, do the interventions researchers make in the research context result in the outcome that can be inferred from the data?' (Burns 1999: 160). That is, action researchers need to ensure that the findings they present are reasonable, logical and are supported by the data. In other words, they are credible. In addition, action researchers need to ensure that the conclusions they made are accurate and well supported by the available evidence. External validity, that is transferability, in AR asks the question 'To what extent this account resonate with my understandings of practice and have meaning in my context?' (Burns 2005a: 68). To

enable other teachers to ascertain whether the research is applicable to them, AR needs to be reported using 'thick description' (Geertz 1973). A thick description presents the observed social action (or behaviour) in rich contextualized detail and with in-depth accounts of the participants' thoughts and feelings to readers (Ponterotto 2006). To ensure dependability in research, action researchers need to report the changes that took place in the processes of the research.

In the current study, I used different techniques drawn from qualitative approaches to provide validity checks on the AR data so as to strengthen the trustworthiness of this research (for details see Section 4.2). In more detail, I tried to enhance internal validity in this research through triangulation, an approach commonly used in qualitative research for checking validity (Burns 1999: 163). Triangulation 'entails using more than one method or source of data in the study of social phenomena' (Bryman 2004: 275). Burns (1999: 163) points out that 'action researchers use multiple methods and the perspectives of different participants in order to gain a richer and less subjective picture than they obtain by relying on a single data gathering technique'. Using different research methods also enables researchers to ensure that what is reported is well-supported and evidenced across different sources of information. This study, conducted during a period of four months in each cycle, used multiple data collection methods (interviews, think aloud protocols, learners' diaries, researcher journal, end-of-class feedback, questionnaire etc) that were suitable for the purposes of the study and were consistent with the paradigm within which this research operates. In addition, to enhance the internal validity of this research member checking was carried out by getting feedback or comments from the research participants on interview data and TAP data. Moreover, I involved a bilingual English teacher, my colleague, who did her Masters in ELT from a university in the UK in

checking translations. To enhance external validity in this study, interview scripts, research journal, end-of-class feedback were used for providing detailed accounts of the participants' standpoint to readers.

4.1.8 Ethical considerations

In AR based in a language classroom setting where the teacher is the researcher and students are the research participants, ethical practices are of paramount importance. The decisions regarding at what stage of the classroom life the teacher-researcher should get consent for the study, how to use the collected data and how to end a research project without leaving the students feeling that they do not know how to contact the teacher in future needs to be kept in view to ensure the ethicality of a teacher-researcher's action in the context. This section discusses the ethical issues in my research under two categories that Guillemin and Gillam (2004: 263) suggest are the major dimensions of ethics in qualitative research: 'procedural ethics' and 'ethics in practice'. 'Procedural ethics' involve 'seeking approval from a relevant ethics committee to undertake research involving humans' and 'ethics in practice' refers to 'the everyday ethical issues that arise in the doing of research' (ibid.).

As part of the procedural ethics, I submitted an ethical approval application and received approval from Graduate Progress Committee at Warwick University to carry out my research before starting the fieldwork. With the application, I prepared an information sheet (see Appendix 1) and an informed consent form (see Appendix 2) for the students. The principle of informed consent refers to people making their own free decision about whether to take part in the research project on the basis of having sufficiently full information about it and to withdraw without adverse consequences (Crow et al. 2006).

In my study, all students were provided with the information sheet that included information about the aims, methods and duration of research to enable them to make informed decision regarding participation in the research. The information sheet was written in a factual, non-coercive and accessible language. The information sheet also provided information to the participants about their right to privacy, confidentiality and anonymity to make research more participant friendly (Dorneyi 2007). Confidentiality refers to managing private information 'that has been communicated in trust of confidence, such that disclosure would or could incur particular prejudice' (Giordano et al. 2007: 264). Anonymity is one way of protecting confidentiality (Wiles et al. 2008). In research, anonymity means 'that we do not include information about any individual or research site that will enable that individual or research site to be identified by others' (Walford 2005: 84). The information sheet also contained information on the uses to which the data will be put.

In both the cycles of the study, I provided students with the information sheet and the consent form two weeks into the cycle. To elaborate, at the start of both cycles of the study I gave students a general idea of the nature and the purpose of the study I intended to undertake in their group. However, I did not take their consent straightaway for two reasons. First, I felt that it is not fair to ask student to be part of a study that has teacher as a researcher till they know what a teacher-researcher is like as a person and professional. I therefore provided students with an opportunity to get to know me better before they could decide whether to participate. Second, I felt that it is not fair to take students' consent to be part of the study till they understand what they are giving permission for. I, therefore, provided students an opportunity to take the reading test and fill in the SORS questionnaire (for details of the lessons see Sections 5.1.6 and 6.1.6) to begin to understand what reading strategies and

metacognition is before taking their consent. During these two weeks I did not conduct interviews since that was not part of the regular teaching. When I gave students the information sheet I facilitated a discussion on it. Following the discussion, I distributed the consent form I had prepared. Before students signed the form, all elements in the consent form were explained to them and they were encouraged to ask questions regarding anything in the form they did not understand. During the discussion on the consent form I informed students about their rights in this research. I stressed that they could withdraw from the study whenever they liked in their capacity as a research participant, and that this will have no bearing on their status as a student. Furthermore, I told them that no personal judgement would be made on them based on their comments or opinions. At the end of the explanation, in the first cycle of the study three male students declined to take part in the study. I considered it an ethical start to the study since it suggested that firstly, perhaps students understood the commitment the study would require from them if they participated and secondly, perhaps they trusted that in my role as their teacher I would not penalize or disadvantage them in any way if they would not take part in the study. In the conduct of both the cycles of the study, I strictly followed the principles that were shared with the students since Creswell (1994: 165) points out that 'first and foremost, the researcher has an obligation to respect the rights, needs, values, and desires of the informant(s)'. Therefore, in the first cycle of the study I neither selected the three male students who declined to take part of the study for interviews or TAPs, nor took their photos during the study.

In both cycles of the study, I took into consideration the ethical issue concerning confidentiality as well. I tried to make sure that the data was kept in a safe place. Moreover, students were informed that their names will be kept anonymous in all

publications as I will use pseudonyms. In keeping with this, in this thesis pseudonyms have been used throughout to protect the anonymity of the students. However, a particular challenge raised by confidentiality in my study is that it was not possible for me to anonymize the identity of the university, since I undertook this action research study in my place of work. Moreover, naming the college and the course enables contextualization of the study. This is in keeping with the published research that points out that ‘in many forms of qualitative educational research it is often actually impossible to offer confidentiality and anonymity' (Walford 2005: 84). Nonetheless, to try to protect the privacy of students as far as possible I shared with them the photographs I took during the study to confirm again their final approval for using them in future publications.

As part of second major dimension of ethics in qualitative research, ethics in practice, I kept in view the concept of reflexivity during both cycles of the study since Guillemin and Gillam (2004) propose that this could contribute to ethical research practice. Guillemin and Gillam (2004: 274) explain the concept of reflexivity as follows:

> Being reflexive about research practice means a number of things: first, an acknowledgement of microethics, that is, the ethical dimension of ordinary, everyday research practice; second, sensitivity to what we call ‘the ethically important moments’ in research practice, in all of their particularities; and third, having or being able to develop a sense of addressing and responding to ethical concerns if and when they arise in the research.

In practice, a reflexive research process would involve a ‘continuous process of critical scrutiny and interpretation’ of our research methods, the data, research context, our participants and ourselves (Guillemin & Gillam 2004: 275). Guillemin

and Gillam's approach recommends a critical examination of the impact the research and the researcher have on the research participants and proposes that we respond sensitively and responsibility towards them.

Perhaps it was in the spirit of reflexivity that I tried to leave the field at the end of both the cycles in a way that does not make students feel that I have abandoned them. It was important to do so since towards the end of the semester in both the cycles students expressed their sadness at the fact that I will not teach them in future. To address this concern, at the end of first cycle I ensured students that I could take English classes whenever they want in the next semester as well. At the end of second cycle since I was leaving for UK, I ensured students that they could discuss whatever they wish to through email, Skype, Viber or Whatsapp. I kept contact with the students of both the cycle after the study ended and gave them feedback on their various assignments whenever they asked for it. Moreover, I edited articles written by some students for the local newspaper or the writing competition they took part in.

4.2 Research methods

The literature indicates that assessment is 'still far from having adequate tools for measuring metacognition' (Baker & Cerro 2000: 129). It is therefore suggested that researchers should use as many research methods as possible to obtain converging evidence regarding students' metacognition. In this regard, for instance, White (1988: 74) wrote, 'though each method is weak, the constellation of evidence from them will be more reliable and valid than each alone'. Being mindful of this, in this study I employed multiple methods for data collection. The interviews, think-aloud protocols, learner diaries and researcher journal were the main data sources in the study. Additional information was collected by means of a questionnaire, a reading test and

the end-of-class feedback of students. Notes were also taken by me during the fieldwork. These methods and the associated issues are discussed in the following sub-sections.

4.2.1 Interviews

Interviews have been frequently used in strategy research with other retrospective data sources such as diaries and questionnaire as a means of developing understanding of awareness and use of learner strategies (Garner 1987). Retrospective methods require students ‘looking back’ at their use of strategies (Oxford 2011: 140). Wenden and Rubin (1987: 32) point out that retrospection ‘can be immediate (e.g. within, say, an hour of the event) or delayed (a few hours, days, or even weeks after the event)’. The data from immediate retrospection is more likely to be more complete than data from delayed retrospection (ibid.).

In strategy research retrospective methods are used to collect data since strategies for the most part are not directly observable as they refer to private internal processes (Cohen 2011). The researchers therefore have to rely on student 'accounts as indirect indicators of these mental processes' (Cohen & Macaro 2007) as 'it is the only way to explore learners' mental processing' (Chamot 2008: 267). Retrospective interviews are among the earliest techniques used by the researchers to investigate strategies (e.g. Rubin 1975; Naiman et al. 1996). Even today interviews are considered as important tool as they provide researchers opportunity to explore, seek clarification and elaborate aspects of strategy use (Cohen & Macaro 2007). Garner (1992) suggested that students could be interviewed by a practitioner to get a sense of their views of reading process, their knowledge of reading and strategies. However, the interview data is not free from criticism. The primary concern about interview data expressed in

the literature is that we may be unaware of the operation of our own minds including the comprehension processes (Nisbett & Wilson 1977). Moreover, in the interviews designed to assess strategic knowledge, participants can profess to use strategies that they do not employ in 'real world' cognitive processing (Garner 1987: 64).

Despite these limitations, in both cycles of this study I used interviews at the start, in the middle and at the end of the study. I carried out the interviews with the four participating students (for details regarding research participants see pages 123 and 215) from each cycle of the study. In both cycles of this study, the students were given the choice whether to use Urdu or English in the interviews. In the first cycle of the study, while three out of the four students gave interviews in English with occasional code-switching to Urdu (see examples in Appendix 3), one student gave it solely in Urdu. In the second cycle of the study all four students gave their interviews in Urdu. Although the use of Urdu by students made my transcribing and translating task difficult, I encouraged students to give interviews in Urdu if they wish to since Chamot (2008) indicates that getting students started on reflecting on their own learning and use of strategies may have to be done through the first language.

The interview at the start of both cycles of the study was carried out for two purposes. First, to get information regarding students' awareness and capacity to think about (i.e. metacognition) and verbalize their strategy use. Second, to discuss with students the use of the strategies they mentioned in the SORS questionnaire that they filled in prior to the interview. Information gathered from the interview helped me plan the action I needed to take during the intervention stage of the study (see Sections 5.1.2 and 6.1.2). The purpose of carrying out interviews in the middle of the intervention stage of both cycles was to find out if there was any change in the students' perception about their metacognitive awareness of the reading strategies. The interview was arranged a

day after students read a text to reduce the interval between reading and reporting. This was done since memory failure is a problem for verbal report data (White 1980). To facilitate recall of the use of strategies during the lessons students were asked to bring their textbook and notebook with them while coming for the interview. During the interview students were encouraged to refer to the texts they have read earlier in the class and the notes they took on their strategy use while reading (for details see Sections 5.2.1.2 and 6.2.1.2). Besides that, they were asked to point towards those parts of the texts where they thought they used strategies. During the interview the number of probes was also minimized as recommended by Ericsson and Simon (1980). This was done to overcome the problem of getting the response from the respondents, knowingly or unknowingly, according to the kind of response the researcher wants (Meichenbaum et al. 1979 cited in Garner 1987). The interviews at the end of the study was again carried out to get students' views on their development of reading skills and changes, if any, on their awareness, use and regulation of reading strategies as a result of instruction.

Although the probes were minimized during the interviews for the reason discussed above, the interviews conducted in both the cycles of the study belonged to the 'semi-structured interview' type. I selected semi-structured interview for this study because 'it gives the interviewee a degree of power and control over the course of the interview' and 'it gives the interviewer a great deal of flexibility' (Nunan 1992: 150). Thus, during the interviews I had a 'general idea of what should come out of it' (Nunan 1992: 149). Also, I followed up 'interesting developments' and did 'let the interviewee elaborate on certain issues' (Dorneyi 2007: 136). Thus, the interview talk was essentially 'a co-construction between the interviewer and interviewee' (Mann 2010: 4).

In this study all of the interviews were audio recorded. They were transcribed (see sample interview in Appendix 4) using some of the transcription conventions summarized in Richards (2003). For instance, I used a period 'to indicate falling intonation, such as would be used to mark the end of a sentence when reading' (Richards 2003: 182). In addition, I used comma 'to represents a ‘continuing’ contour, the sort of intonation that shows the speaker wishes to carry on speaking' (ibid.). Moreover, I used periods in brackets to indicate pauses. In both cycles of the study, I also got feedback from the interviewees on the interview transcripts to see if there were any problematic parts in the transcripts. In this thesis I have used the Arial font to present data extracts from the interviews.

4.2.2 Learner diaries

In addition to interviews, I collected data through learner diaries. Diaries are used as a research tool to collect information regarding language learners' strategies (Chamot 2004). Diaries allow students to write personal observations about their own learning experiences (see, for e.g. Carson & Longhini 2002). In their diaries learners could ‘describe the strategies they used to handle specific learning challenges and needs’ (Oxford 2011: 166). However, diaries may not provide ‘fully accurate or complete insights’ into strategies (Cohen & Macaro 2007: 97).

The literature suggests that diaries should be used for instructional purposes to help students develop metacognitive awareness of their learning processes and strategies (Rubin 2003). Anderson (2008: 105) points out diaries based on appropriate prompts could help teachers gain insights into students' metacognition. Similarly, Oxford (1990: 198) indicates that diaries 'can be used to help learners become aware of their whole range of strategies'. Diaries can be used as an open-ended instruments in which

students could write down anything that comes to their mind in reaction to learner strategies (Cohen & Macaro 2007), or they could be provided guidelines (see, for example, Nunan 1996).

In both cycles of this study, I used diary for research and pedagogical purposes (see Sections 5.2.2 and 6.2.2). All students of both the cycles maintained a diary during the term (see sample diary entry in Appendix 8). I collected their diaries after every two weeks to give my feedback on their entries. At the start of the first cycle students were asked to maintain their diary in English. However, on reflecting on the proficiency level of the students (see Section 5.1.4) I later asked and encouraged them to make diary entries in Urdu if they wish to. However, none of the students choose to write the diary entirely or partially in Urdu in the first cycle of the study. In the second cycle of the study I also allowed students to make entries in Urdu as overall less students had higher reading ability as compared to students in Cycle 1 (see Section 6.1.4). In second cycle one of the students made diary entries entirely in Urdu.

In both cycles of the study, students started making entries in their diary at the start of the intervention stage of the study. For all entries students were given themes. In their first diary entry students of both cycles were asked to reflect about their own reading skills, the challenges they face during reading and how they intend to overcome them in future. A little later in the study, students of both cycles were asked to reflect on their growing understanding of the characteristics of good reading. At the same time they were given an opportunity to read other students' diary entries in the class. Once the strategy instruction was underway, students in both cycles were asked to write in their diary about the strategies they thought they were using during reading lessons. They were also asked to write down the strategies their peers used during collaborative TAPs (see Sections 5.2.1.1 and 6.2.1.2). Besides that, students in both

cycles were asked to share their views on the SEM they filled in (see Table 3.1, p. 75) listing 'how to use', 'when to use' and 'why to use' for each reading strategy they were introduced to. Later, students were asked to write about their regulation of strategies using the RC (see Table 3.2, p. 76) provided to them for this purpose. They were also asked to write in their diary if they use the taught strategies in any other subject as well. It is noteworthy that students in both cycles were encouraged to reflect on their awareness, use and regulation of strategies only when the evidence from discussions showed that students understand and use some of the strategies independently. Besides making students reflect on their awareness, use and regulation of reading strategies in their diary, students were also asked to share their views on issues that helped me adjust the intervention according to students' needs and views. For instance, during the middle of the study students of both cycles were given specific prompts to share their views on the use of pair and group work to facilitate reading lessons, use of teacher modeling and so on.

At the end of each cycle of the study, learner diaries of the sampled four students (for details regarding research participants, see pages 123 and 215) were collected and coded by me. In this thesis I have used the Comic Sans MS font to present data extracts from the learner diaries.

4.2.3 Think aloud protocols

Think aloud protocols have been extensively used in strategy research projects (Cohen & Macaro 2007) as they provide rich insight into students' reading comprehension processes (Afflerbach 2000). They are used to study cognitive strategies (Olson et al. 1984). TAPs also provide an opportunity to examine the comprehension monitoring process (Block 1992). Researchers usually select think aloud methods in preference to

other methods for a number of reasons. For instance, they yield rich data about processes 'that are invisible to other methods' (Hayes & Flower 1983: 218). Moreover, memory failure is not an issue in think aloud since 'the distance between process and report is one of seconds rather than of days or weeks' (Garner 1987: 73). Furthermore, think aloud methods 'get learners to provide unanalyzed, unedited insights into what they are doing' (Cohen 1990: 3). However, there are certain limitations in using think aloud as a research tool for reading. For instance, think alouds may not provide information about those reading processes which are not easy to verbalize or are already automatic and hence not accessible any more to consciousness to report (Block 1986). Morevoer, they may disrupt processing of the task (Baker & Cerro 2000). Transcription of think alouds is also considered an ardous task (Kail & Bisanz 1982).

In using think aloud methods, researchers provide students a task and ask them to say aloud 'everything they think and everything that occurs to them while performing the task, no matter how trivial it may seem' (Hayes & Flower 1980: 4). An important consideration in think aloud elicitation is the question of language. In an ESL context, while some researchers (e.g. Anderson & Vandergrift 1996) have doubted that think alouds in an L2 provide as much information as those carried out in an L1, some others (e.g. Faerch & Kasper 1987) have indicated that the use of L1 might have negative effects on the performance in the L2. Due to these contrasting positions, current researchers point out that it seems helpful 'to give students the opportunity to think aloud in any language(s) that they wish to use' (Cohen & Macaro 2007: 103). Taking this insight into consideration, in both cycles of this study I informed the research participants that they could report their thoughts in their first language or in English, or they can mix languages during think aloud. Most of the students used

Urdu as well as English during the TAP. However, some used only Urdu or English during it.

In both cycles of the study, I collected TAPs from four participating students (for details regarding research participants see pages 123 and 215). In the first cycle I used TAP only in the middle of the intervention stage of the study. However, when in the first cycle of the study I became concerned that the findings from the questionnaire might not be totally accurate (see Section for details 5.1.7), I decided to use TAP at the start of the second cycle of the study as well. Seeing the rich data I was able to collect from TAPs, I also used it at the end of Cycle 2 as well. The texts in both the cycles for TAP were selected from the prescribed textbook. The text that was used in the first cycle was titled 'Science and Society'. This text was also used for the first TAP in the second cycle. In Cycle 2, the texts that were used for the second and third TAP were titled 'Pakistan's Education Emergency: Failing its Future' and 'Debate about the Semester System'. These texts were not taught in the classes.

For the purposes of TAPs, following Bereiter and Bird (1985), I instructed the participants to read the given texts and express all thoughts aloud at the moment they came to mind. Moreover, keeping in view the previous literature (e.g. Aghaie & Zhang 2012), I encouraged the participants to self-select the moments at which they wished to verbalize thoughts to minimize my intrusiveness as the teacher-researcher. Furthermore, also in line with the previous literature (e.g. Garner 1987, Block 1992), I provided the participants with the training to familiarize them with the procedure. Although during the training I read the text silently, during the TAPs all participants chose to read the text aloud probably because they always read the text aloud in school and colleges (for details see Sections 5.1.1 and 6.1.1). I did not consider it

problematic since some researchers in their studies (e.g. Kim and Cha 2015) provided students with the choice to read the text aloud or silently during think aloud.

In this study all of the TAPs were audio recorded. They were transcribed and coded by me (see Appendix 5). For transcription, I used the same transcription conventions that I used for the interviews (see Section 4.2.1). In this thesis I have used the Book Antiqua font to present data extracts from the TAPs. In each extract, the text in bold reflects what the student read aloud. The text in italics reflects the participant's spoken thoughts.

4.2.4 Researcher journal

Research journals are diaries kept by the teacher-researchers during the course of a research project. Burns (1999: 133) indicates that a teacher-researcher diary 'can provide valuable insights into classroom interactions and the students' responses to their learning experiences'. It can also help teachers organize their thoughts into more systematic reflections about their work (Farrell 2004). In this study, I made entries in journal to record and reflect on what I did, when, how and why in the lessons. In the journal entries I also took note of the observations I made regarding students' use of strategies during the lessons (see sample journal entries in Sections 5.2.1.1 and 6.2.1.1). In addition, I recorded any emerging ideas and what I thought or felt about the challenges I faced during the research. During the study I noticed that keeping reflective accounts of the lessons contributed to my decision making and developing understanding of the phenomenon under study. In addition, the reflective accounts provided ideas for the future direction of the work. Moreover, it helped in deepening my understanding of the research process as keeping a journal became part of the

analysis and tentative interpretation of events itself. In this thesis I have used the Times New Roman font to present data extracts from the researcher journal.

4.2.5 Reading test

In this study, students were given an academic reading test named the University of Warwick English Language Test (henceforth, WELT) at the start of each cycle. The WELT used to test reading proficiency of students seeking entry into Warwick University a few years ago. I administered the WELT for three reasons. First, to help students reflect and recall the strategies they utilized during the test while filling in the SORS questionnaire and later during the interview. This was important since the literature indicates that students may fail to recall strategies they have used in the past and therefore may make wrong claims about strategy use (Cohen & Macaro 2007). Second, to facilitate a discussion on the strategies students used during the test (see Sections 5.2.2 and 6.1.6) since Samuels et al. (2005: 55) state that 'a method to promote the development of metacognition in students is to ask them to assess their own work'. Third, to have an idea about reading proficiency level of my students. The results of the test also helped me select four participating students from each cycle for the study (for details see pages 123 and 215).

4.2.6 Questionnaire: Survey of Reading Strategies (SORS)

In this study I administered a self-report questionnaire to all students at the start of each cycle of the study. The literature indicates that the 'most frequent and efficient method for identifying students' learning strategies is through questionnaires' (Chamot 2004: 15). However, generally self-report questionnaires are seen to have certain limitations. For instance, it is said that students may not understand the strategy descriptions in each item of the questionnaire. In addition, students may make

wrong claims about strategy usage and fail to recall strategies they have used in the past (Cohen & Macaro 2007). Despite these limitations, self-report questionnaires are 'most frequently used' (Chamot 2008: 268) and are considered 'very effective' (Anderson 2008: 105) in strategy studies, especially dealing with adult populations (Vandergrift et al. 2006).

The self-report questionnaire that was used in this study is called 'Survey of Reading Strategies' (SORS). The SORS questionnaire assesses adolescent and adult ESL students' metacognitive awareness and perceived use of reading strategies while reading academic materials (Mokhtari & Sheorey 2002). It is designed for adult, bilingual or multilingual students studying English as a second or foreign language. It seems relevant to mention here that the SORS is adapted from another instrument, the Metacognitive Awareness of Reading Strategies Inventory (MARSI), to be used with students for whom English is a second language. The MARSI was developed by Mokhtari and Reichard (2002) to measure native English speakers' metacognitive strategies. It was validated using a large native speaker population (n=825) representing students with reading abilities ranging from high school to college level (Mokhtari & Sheorey 2002). MARSI is recognized as a dependable measure of metacognitive awareness of reading strategies since the reliability for the overall scale of MARSI is 0.93. Moreover, the internal consistency reliability, determined by Cronbach's alpha and based on the results of a series of factor analysis for the three subscales of MARSI is .92 on the global reading subscale, .79 on the problem solving strategies subscale and .87 on the support strategies subscale. The revised SORS has also been field tested on ESL students (n=147) studying at universities in United States and its overall reliability was established with a Cronbach's alpha of .89.

The SORS, like MARSI, consists of 30 statements (see Appendix 6) structured on five-point Likert scale, ranging from 1 = "I never or almost never do this." to 5 = "I always or almost always do this." The statements included in the SORS require the participants to select a number from the scale that applies to them by circling it. The selected number on each statement indicates participants' awareness of and perceived use of reading strategies during academic reading. Thus, the higher the number, the higher the perceived awareness and use of the strategy.

The SORS measures three categories or subscales of reading strategies: global reading strategies (GLOB), problem solving strategies (PROB) and support strategies (SUP). Global Reading Strategies are those intentional reading strategies that readers use to monitor or manage their reading. Examples of such strategies include deciding what to read closely and what to ignore, using typographical aids like boldface and italics to identify key information. In the SORS thirteen statements are related to GLOB. Problem Solving Strategies (PROB) are the localized, focused, while reading strategies that readers use to address problems of understanding textual information. Examples of PROB include adjusting reading speed according to what one is reading, visualizing information to help remember what one is reading. In the SORS eight statements are related to PROB. Support Strategies (SUP) are the support mechanism or tools aimed at aiding readers to sustain responsiveness to reading. Examples of SUP include using dictionary, paraphrasing, reading aloud and taking notes. In the SORS nine statements are related to SUP.

I administered the SORS at the start of both cycles for several reasons. First, to understand students' perceived awareness and use of reading strategies. This information helped me decide if the students were aware of the strategies given in the prescribed textbook (see Sections 5.1.2 and 6.1.2). Second, to provide students a

means of increasing awareness of reading strategies as suggested by Mokhtari and Sheorey (2002) and Baker (2002). Third, to provide initial information to students regarding the range of strategies they could use during reading. Fourth, to encourage students to set a personal agenda or set of goals for developing their reading skills as they become aware of the reading strategies they use, don't use or would like to use while reading an academic text after filling in the questionnaire (see Sections 5.1.6 and 6.1.6). I manually collated the frequency of the use of strategies by students in both cycles of the study.

At the end of both cycles of the study, I administered the SORS again since all students in Cycle 1 and some in Cycle 2 wanted to see the change in their score of reading strategies. Since I used the questionnaire for pedagogical purposes, I did not put it to statistical test. However, it provided me an additional means to report if there were any changes in students' awareness and use of the taught strategies (see Sections 5.3.2.4 and 6.3.2.4).

4.2.7 Note-taking

In both cycle of this study, I asked students to make notes of the strategies they used during reading in the intervention phase of the study (see Sections 5.2.1.2 and 6.2.1.2). Oxford (1990: 197) states that 'note taking is a self-report technique'. I asked students to note down their strategy use during reading this study for three reasons. First, to help students become aware of the strategies they used during reading. Second, to help students systematically keep track of their strategy use since this could have helped them in making diary entries in which they had to reflect on their awareness and use of reading strategies. Third, to encourage students during the

interviews to refer to the notes they have taken while reading to give examples of strategy use and regulation.

In this research, I also took notes in the class to recount on-site events later. The notes helped me in journal writing after the lesson. The literature indicates that note taking by the observer should be done as quickly as possible after finding something useful and interesting (jotted notes). In addition, the literature points out that 'mental notes' are quite useful when it is inconvenient to take jotted notes (Bryman 2004: 308). In this study both jotted and mental notes were taken. I took jotted notes to record the strategies students' use while performing different tasks. However, since I was facilitating the lessons as well therefore the jotted notes took the form of key words or phrases during the lesson.

4.2.8 End of class feedback

In both cycles of the study, I collected feedback from students at the end of almost all lessons. In more detail, I informed students of both the cycles at the start of the semester that they will get an opportunity to give their anonymous feedback on the lessons on the slip of paper that would be provided to them for this purpose. I informed students that they could write their feedback in English or Urdu on the slip of paper named as 'exit slip' (see Appendix 7). I also informed students that they could use the exit slip to share any concern or suggestion if they wish to. I asked students to do so for several reasons. First, to find out the thoughts and feelings of my students during the study so as to cater to their needs. It was especially important to do so at the start of both the cycles of the study since students did not start making diary entries at that point in the study. Hence, I had no means other than the 'exit slip' to access their views on the lessons and the learning they were going through. Second,

to make my students feel that am not a scarce resource in a class that was relatively large for me as they could share with me whatever they choose too. To make students realize that I do read their comments carefully, I discussed the feedback I received from students from the previous class at the start of each class during both cycles of the study. Third, to help students start reflecting on what they were learning from the start of the study since in this study I aimed to make students aware of their own thinking and learning. In both cycles of the study, most of the students choose to write on the exit slip in English only. Throughout the study the exit slips helped me understand the views and feelings of my students. In addition, they helped me tailor the lessons according to the students' needs. In this thesis I have used the Brush Script MI font to present data extracts from the exit slips.

4.3 Data analysis

In this study I adopted thematic analysis method for data analysis. Thematic analysis is defined as 'a form of analysis based on the identification of themes in a text at different levels' (Richards et al. 2012: 350). In other words, thematic analysis involves identifying, organizing and reporting themes and sub-themes in a text that could result in 'rich and detailed, yet complex, account of data' (Braun & Clarke 2006: 78). I adopted thematic analysis in this study since it is considered to be a 'useful and flexible method for qualitative research' (Braun & Clarke 2006: 77). This section describes the phases I went through during thematic analysis and attempts to ‘show my working’ in the analytic process as recommended by Holliday (2002: 47).

Burns (2010a: 135) points out that in an AR study the data analysis ‘does not have to wait until the end’. Braun and Clarke (2006) also indicate that in qualitative research the process of analysis can start during data collection when the researcher notice and

identify interesting features in the data. In this study, the process of analysis started in the act of teaching in both cycles of the study. That is, I began to notice the interesting aspects of my data as I read 'exit slips' at the end of almost each lesson. Moreover, as I read the learners' diaries and wrote my questions or comments in them for students to ponder over I began to become familiar with the world captured in them. To familiarize myself with the data from the interviews and TAPs I transcribed them soon after conducting them. Transcription helped me develop a good sense of these data sets and also helped me decide the actions I needed to take in the upcoming lessons to address the needs of my students. I also started to translate the data in English. Even though I faced some 'translation dilemmas' (Temple & Young 2004) in generating transcripts in English (e.g. lack of lexical choice and different sentence structure), in my translation I tried to approximate the meanings expressed by the participants as much as possible. Despite of transcribing and translating the data, during teaching I remained mindful of the need to re-familiarise myself with the content of the data. To chase up the ideas in my data during my repeated readings of it, I started putting initial comments, marking some interesting passages, and/or recording questions prompted by the data (see example in Appendix 8). This careful, detailed and iterative reading of the data helped me understand the 'depth and breadth of the content' (Braun & Clarke 2006: 87). It also resulted in an initial list of ideas identified in the data which were useful for developing a further analysis stage.

The next step in my thematic analysis involved the production of initial codes from the entire data set in a systematic manner. Codes refer to 'the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon' (Boyatzis 1998: 63). To drive the organization of data into meaningful groups through coding, I used NVivo 10 that I downloaded from my university website. The process of coding involved long periods of immersion in the

data and deep level of engagement. At this stage I aimed to code the content of the entire data set inductively to have a better fix on it. In inductive approach data is coded 'without trying to fit it into a preexisting coding frame, or the researcher's analytic preconceptions' (Braun & Clarke 2006: 83). At this stage I also started to write memos recording the questions prompted by the data; my reflections on the coding process or on emerging themes, thoughts and ideas. As I coded the data, I monitored and reviewed the codes on completing coding of each individual interview, TAP or diary entry. During coding, I made comparison across codes to ensure extracts fitted the assigned categories. I also re-allocated extracts where necessary to refine the categories as suggested by Braun and Clarke (2006). In Appendix 9 I have included the extracts from my memos relating to the above mentioned activities to provide a sense of the thinking-work involved in the analytical process. For codes that emerged from TAP I drew tables that helped me see the change in students' use of the reading strategies over a period of time (see example in Appendix 10). I also summarized the codes that emerged from TAP and interviews (see example in Appendix 11).

After coding the data, I felt I had a good sense of the data and moved on to the phase of analysis in which different codes are sorted into potential themes. In this phase the interpretive analysis of the data occurred as I started thinking 'how different codes may combine to form an overarching theme' (Braun & Clarke 2006: 89). As relations between codes became apparent, I began to link codes by creating 'child' nodes in NVivo 10. The child nodes were 'type-of' or 'aspect-of' the individual codes. For example, metacognitive knowledge was an aspect of 'metacognition' (see Figure 4.2).

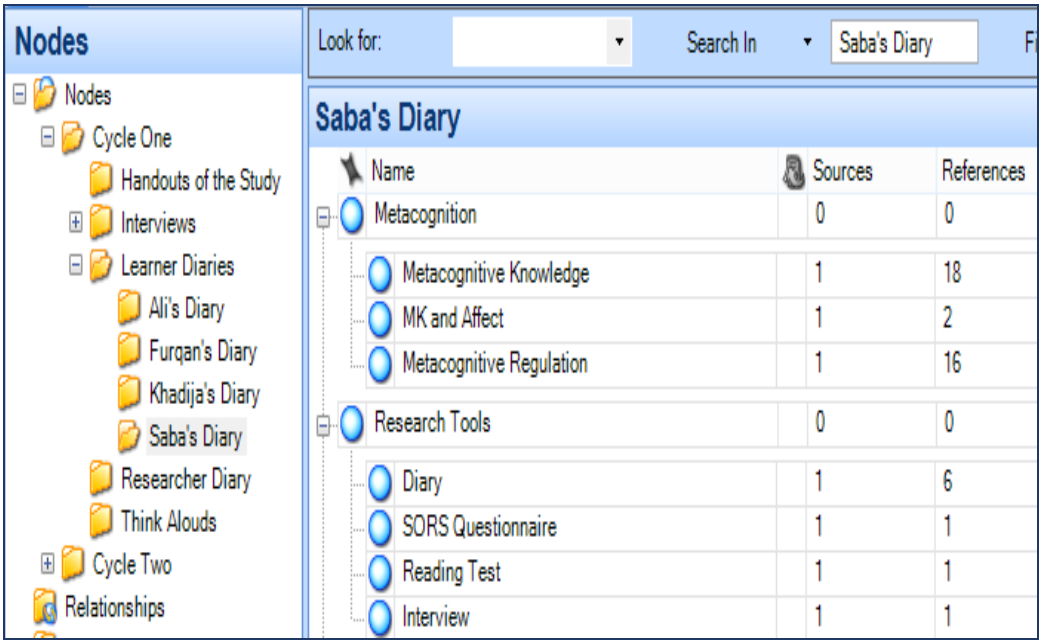


Figure 4.2 A snapshot of my data coding

At this stage I went back to the literature to see how all the emerging ideas in the areas of metacognitive awareness, strategy use and regulation have been categorized and discussed in it. In the process, I continued to review and refine the themes to capture 'something important about the data in relation to the research question' (Braun & Clarke 2006: 82). I probed my data in a number of ways. I reflected on the emerging innovative ideas (e.g. it seems teachers and researchers could make use of research tools as pedagogic tools for promoting metacognition of reading strategies in students), asked questions (e.g. 'what is the relationship between metacognition and affect?'), as well as played devil's advocate with respect to the findings (e.g. what makes you certain that metacognitive knowledge of self has an affective dimension?). Moreover, I summarized the themes and sub themes that emerged from data which helped me think deeply about the data (see example in Appendix 12). I combed through the analysis several times to check the themes and sub-themes until I was satisfied that the analysis was rigorous, sound and valid.

With insights from the analysis of all data sets, I had a clear picture of the process as well as the outcome of the metacognitive reading strategies instruction I undertook during the study. I therefore selected extract examples and wrote up the analysis (Braun & Clark 2006: 91). In keeping with Braun and Clarke's (2006: 91) suggestion, in this process I considered the themes themselves and in relation to other themes so as to fit the 'story' that each theme tells into the overall 'story' about the data. This story is presented in the next two chapters (Chapters 5 and 6). What is noteworthy is that in these chapters I did not punctuate the extracts I presented in them using the convention of 'sic' to draw attention to students' errors. I choose not to use 'sic' partially because students made quite a few errors related to pronunciation and sentence structure as they tried to communicate their ideas and experiences in English, and also because this study does not aim to draw readers' attention to the errors students made during speaking or writing.

4.4 Limitations

There are potential limitations in this study. The most salient is that given the nature of the study which overwhelmingly involved students' collaborative discussion on strategy use, audio recordings would provide a useful record of students' online use of strategies during classroom discussions. But audio recording was not feasible in the context. As mentioned in Section 2.2.1, I had to facilitate the lessons many a times in the grassy patch outside the assigned classroom due to power failure. The place outside the classroom used to be noisy as it was filled with twittering of birds and talk by students of other classes. In the second cycle of the study it was difficult for me to hear students even in the classroom since the noise from the neighbouring classes and students talking in the corridor used to be too loud. In these circumstances, there was an option of asking students to hold the audio-recorder in their hands to talk straight

into it. But I thought it would be ethically inappropriate and irresponsible of me as their teacher to ask them to do so since that would have distracted them as well as impacted their interaction with other students during the lessons. The decision not to use the audio-recorder pushed me to collect data using multiple sources.

Another necessary compromise lay in my approach to conducting TAPs. Typically in a TAP students read the text silently and report their use of strategies. However, as mentioned before, in this study all students choose to read the text aloud during TAP. I did not interrupt or lead them away from the way they wished to share their reading process since I thought it would increase cognitive burden on students.

In this chapter, I presented an account of the research design of this study and explained data collection methods and data analysis process. I also addressed the issues related to quality and ethics relevant to this study, before discussing some of the limitations of the study. The following two chapters presents and discusses the findings of the study.

Chapter Five

Cycle 1: January 2013 – May 2013

Chapter 6 offers a description and analysis of Cycle 1 in my AR project. This first cycle spanned four months. It was due to start in the second week of January 2013 with the beginning of a new academic year. However, due to violence in the city it started in the fourth week of January 2013. During the cycle six lessons got cancelled since Karachi witnessed incidents of violence in the form of bomb blasts, target killings and strikes. To make for the loss of these lessons, I took an unscheduled class on every Tuesday from 9th of April 2013 onwards with the consent of my students.

For this cycle I was assigned a group of first year Bachelor of Arts (BA) students from a department from the Faculty of Science. The group comprised of 30 Pakistani students, 7 male and 23 female. They ranged in age from 19-20. The entire group was invited to take part in the study. However, I selected four participating students, namely Saba, Furqan, Khadija and Ali for the in-depth data collection. I selected these students since they represented different proficiency levels in reading as shown by the results of WELT: Saba scored A grade, Furqan scored B grade, Khadija scored C grade and Ali scored D grade. The stages the participants and I went through in Cycle 1 were: initial investigation and intervention.

5.1 Initial investigation

The literature indicates that without knowledge of students' level of awareness and regulation of comprehension processes it is difficult for a teacher to 'plan for instruction that is on the cutting edge of their understandings in order to foster independent, strategic processing' (Schmitt 2005: 105). Keeping this in view, during

the initial investigation stage of the study I facilitated seven lessons primarily to determine students' awareness, use and regulation of reading strategies. The lessons were each 60 minutes long.

During this stage I administered a reading test and a SORS questionnaire to all students. However, I conducted interviews only with the participating students. Besides that, I collected anonymous feedback from all students concerning lesson management, the challenges they faced during the lessons and suggestions for future lessons by means of exit slips. In addition, I used my researcher journal to reflect on the lessons and the issues that were emerging from the data.

The most prominent issues related to reading that emerged from the lessons and interviews were: students' conception of reading, students' awareness of the reading strategies they use while reading, students' regulation of reading, students' reading ability, students' lack of interest in reading; development of students' interest in reading and change in students' awareness of the reading strategies. In the following section I shall discuss the issues that emerged during the initial investigation. I shall also discuss what implications they had for the intervention stage of the study that aimed at promoting metacognition of reading strategies in students.

5.1.1 Students' conception of reading

The key finding of the investigative stage of the study is that three of the four participating students held a 'word-centered' (Devine 1984) theoretical orientation (or model) of reading. As discussed in Section 3.2.6.1, readers possessing this theoretical orientation believe that 'word recognition' or decoding primarily 'constitutes good reading' (Devine 1984: 99). They therefore focus on 'individual vocabulary items' and 'attempt to build meaning through the identification of words' (ibid.) since

meaning for them 'becomes a collection of the meanings of individual words in the text' (ibid.). Specifically, Khadija who had average reading ability and Ali who had poor reading ability believed that reading each and every word of a text helps understand it:

> Paying attention on word to word makes reading easier.
>
> (Extract 5.1, Khadija's interview, 12.02.13)

> We will understand if only reading is done word by word.
>
> (Extract 5.2, Translation from Ali's Interview, 12.02.13)

Similarly, Saba who had very good reading ability believed that understanding every word during reading is a characteristic of a good reader. This belief of Saba echoed the word-centered theoretical orientation of reading of that of Khadija and Ali:

> Researcher**:** In your opinion what makes somebody a really good reader?
>
> Saba: If they understand exactly each and every word of what they are reading about.
>
> (Lines deleted)
>
> Researcher**:** So you think it's important to understand each word while you are reading?
>
> Saba: Because then only you will get the meaning of what you are reading.
>
> (Extract 5.3, Saba's Interview, 12.02.13)

The finding that most of my participating students expressed a word-centered theoretical orientation of reading implied that they might believe that all 'meaning is in the text' (Devine 1998: 136). Therefore, it was possible that they may employ almost exclusively decoding or bottom up reading strategies during reading since 'a reader's theoretical orientation may affect reading behaviour' (Devine 1998: 136). This indeed appeared to be the case, except for Saba who despite what she said above

also reported employing a top-down processing strategy during reading (for details see Section 5.1.2).

At another level, students' word-centered theoretical orientation of reading and use of mainly decoding strategies during reading also suggested that during their education my participating students were perhaps encouraged to read all the words given in the text since 'instruction strongly affects the students' perception of the reading process' (Garner 1987: 38). The data illustrates that three of the participating students indeed experienced reading every word during their English lessons in school and college. This is noticeable from the following extract from Saba's diary:

> From my school to my college, whenever our teachers said read, we stood up and read aloud or desperately waited for our turns to do so. After finishing reading, our teacher would explain difficult words and their meanings.
>
> (Extract 5.4, Saba's diary, 12.03.13)

Here, it can be seen that the technique of reading aloud that Saba's teachers employed during the lessons led students to focus on each and every word during reading.

Furqan's description of how teachers taught reading during the lessons resembled that of Saba's as illustrated from the following extract:

> They (the teachers) just (…) I think they just asked the student to stand up and start reading a paragraph then next student does that and then next. That's how they completed the chapter and the teacher (...) just start describing what is in the chapter.
>
> (Extract 5.5, Furqan's interview, 12.02.13)

The previous extracts show that the teachers of my participating students either explained the meaning of 'difficult words' or described 'what is in the chapter' after

students had read the text aloud. This may have encouraged a word-centered model of reading and may have oriented these students away from meaning.

5.1.2 Students' awareness of the reading strategies they use while reading

During the initial investigation stage, both the SORS questionnaire and the interviews provided me with information regarding students' awareness of the reading strategies that they used while reading an academic text. For instance, I learnt that most of my students reported that they did not use pre-reading strategies before reading an academic text. Going into more detail, out of the 30 students who filled in the questionnaire, 04 students never, 05 occasionally and 10 sometimes activated their prior knowledge (item 3); 06 students never and 09 occasionally skimmed the text (item 4); 07 students occasionally and 06 sometimes predicted the text content (item 24). This result from the questionnaire was supported by the findings from the interview data. For instance, during the interview I asked the four participating students if they did anything before they started reading an academic text. In response to this question they informed me that they generally did not do anything before academic reading as is evident from the following interview extracts:

> No, I don't use any strategy.
>
> (Extract 5.6, Furqan's interview, 12.02.13)

> I take interest in that if I don't take interest in that than I think I have nothing to read.
>
> (Extract 5.7, Khadija's interview, 12.02.13)

However, I also learnt that Saba was aware of the strategy of scanning, a top-down reading strategy, even though she called it 'skip and skim' and used it during the

'papers' (the term 'paper' is used for 'examination' in my context) only as can be seen in the following extract:

> Before reading first I just skip and skim. I just find the dates without analyzing any part of the text. I just first takes the dates out. Then I take all the figures and statistics. Then all the names of the people (…) I only use it for the papers that I know I have marks for. Otherwise I never do that.
>
> (Extract 5.8, Saba's interview, 12.02.13)

As is noticeable from the above extract, Saba had procedural knowledge of the strategy of scanning but she lacked declarative knowledge of it. Recall procedural knowledge includes knowing how to 'execute a given strategy' (Almasi 2003: 7), whereas declarative knowledge refers to 'knowing what or knowing that' (Schmitt 2005:103).

Besides that, the data shows that my students mainly employed bottom-up reading strategies (for discussion on bottom-up strategies see Section 3.1.4) during reading. To elaborate, out of the 30 students who filled in the questionnaire, 21 students always and 07 usually reread the text to increase their understanding (item 25); 15 students always, 05 usually and 07 sometimes used reference material such as a dictionary (item 13) (see Appendix 6 for viewing the frequency of other strategies used by students). Interview data further highlighted that among my participating students, those who had average or low reading ability either took help from another or exclusively employed bottom-up strategies during reading to comprehend the text. This is noticeable from the following extract:

> While I am reading (aaa) if I can't understand anything (…) I only read that line again and again so I would be I know what is the meaning of that. (Lines deleted). I use dictionary as well (Lines deleted). To understand (a word) (…) umm I ask to my brother, I do not immediately open

> the dictionary (giggle) I ask to my brother to my mother do you know the meaning?
>
> (Extract 5.9, Khadija's interview, 12.02.13)

Here, Khadija reported that she deployed the bottom-up strategies of rereading and using dictionary to repair her reading failure. She also reported asking for help from her family members, brother or mother, when she realized that she did not understand meaning of the word(s).

Like Khadija, Ali also took help from his family member, sister, when he noticed a break down in his comprehension due to lack of understanding of word(s). He also used dictionary and the net to arrive at the meaning of difficult word(s):

> If I do not understand a word I ask my sister to explain it to me. If she does not know then I go to internet and it gives synonyms antonyms (Lines deleted). If I do not understand a paragraph (…) if dictionary is close I check it, if sister is with me I ask meaning of main words of paragraph from her or ask her to explain the entire paragraph.
>
> (Extract 5.10, Translation from Ali's Interview, 12.02.13)

The finding that Khadija and Ali employed bottom-up strategies to find the meaning of a word was in keeping with the literature that indicates that non-proficient L2 readers 'mainly engage in bottom-up strategies' (Salataci & Akyel 2002: 2). In plainer language, this finding indicates that these students were similar to other novice readers who focus on decoding individual words, and are not aware of alternative strategies for enhancing comprehension (Garner & Reis 1981; Garner & Kraus 1981; August et al. 1984; Recht & Leslie 1988). For instance, they did not appear to know that 'they can skip unfamiliar words' just like other novice readers (Paris & Flukes 2005: 122). On the positive side, however, the previous extracts depict that Khadija and Ali were metacognitively aware of the strategies they employed during reading to

maximize their understanding**.** It is possible that these students were able to report using these strategies because being adults they were more aware of their own cognition and were able to describe their knowledge of cognition better (Baker 1989). What is noteworthy, however, is that their heavy reliance on others to explain the meaning of a word, sentence or paragraph to them suggested that either they were not self-reliant or they were not willing to expend the cognitive effort required to use other strategies they showed awareness about such as using the dictionary or internet.

The findings that students generally used no strategies before reading and mainly used bottom-up strategies during reading implied that I needed to bring to students' notice that in addition to decoding the words given in the text, good reading involves actively constructing meaning to make sense of the text using one's knowledge of the world as well (Blachowicz & Ogle 2008). The finding also implied that I needed to introduce top-down reading strategies (for discussion on top-down strategies see Section 3.1.4) to the students as they were 'new' to the students of my context. It seemed important to introduce top-down strategies for two other reasons as well. First, the literature indicates that when students 'view reading as a sound-or-word-centered process, they often rely on bottom up processing strategies that impede comprehension' (Auerbach & Paxton 1997: 241). Second, researchers into schema theory (e.g. Carrell 1998a; Eskey 1998) have clearly demonstrated that readers must combine bottom-up and top-down strategies for successful reading, as stated earlier. Moreover, the finding implied that there are a number of strategies that I could teach during the intervention stage of the study. However, since I had a limited number of classes for teaching reading I knew it was not possible for me to teach all the strategies that the data from the questionnaire and interviews showed that students rarely or never used. I therefore decided to provide metacognitive reading strategy

instruction on the top-down strategies given in the prescribed textbook since the results of the questionnaire and the interviews showed that these strategies were rarely or never used by the students (see Appendix 6 for viewing the frequency of other strategies that were rarely or never used by students). These strategies were namely, prediction, identifying the main idea, skimming and scanning.

5.1.3 Students' regulation of reading

During the initial investigation stage the data from the interviews also revealed that all four participating students regulated their processing of text during reading (see Section 3.2.4.2 for discussion on regulation of cognition). This is apparent from Extracts 5.9 and 5.10 (see Section 5.1.2) that illustrates that Khadija and Ali not only took note of the metacognitive experience of not understanding word(s) during reading but also acted on their metacognitive experience of confusion as they deployed strategies such as rereading to correct comprehension. Recall that metacognitive experience, a component of regulation of cognition, includes 'a sense of confusion on which the person may or may not act' (Griffith & Ruan 2005: 4). The finding that, like mature readers, my participating students tried to engage in 'comprehension monitoring, noticing and fixing comprehension difficulties' (Westby 2004: 399) implied that I would not need to promote their regulation of reading from scratch during the intervention stage. In addition, it made me hopeful that my intervention could further help students become strategic readers, since 'the ability to monitor one's comprehension is at the heart of strategy instruction' (Almasi 2003: 155). Moreover, the literature indicates that it is when students are not aware of when comprehension is breaking down strategies introduced by the teacher to help students become strategic could fail (Carrell et al. 1998). However, it bears noting that I found no evidence of 'forethought or planning phase that precedes performance' or

‘evaluative phase that occur after performance’ during the initial investigation (Schreiber 2005: 218). This implied that students did not regulate their reading comprehension by using all three components of self-regulation, namely planning, monitoring and evaluation.

5.1.4 Students' reading ability

Another salient finding of the initial investigation stage was that I had students with different reading abilities in my class (see Table 5.1). I learnt this as a result of administering WELT (for details regarding the reasons for administering WELT see Section 4.2.5). The test was marked out of 30. The number of students who took the test was 27. The number of students who scored Grade A, B, C, D or E in the reading test are given in Table 5.1 below:

Table 5.1 Students in each ability grade (Cycle 1)

Grade	No of students
Grade A	01
Grade B	16
Grade C	09
Grade D	01
Grade E	00

The interpretation of the scores using Warwick's interpretation guide indicated that out of 27 students who took the test one student read English with very good general comprehension at a reasonable speed; 16 students read English well, with few misunderstandings; nine students were reasonably competent readers of English but still read rather slowly and with some misunderstanding in examination conditions;

and in one student the misunderstanding of the texts were serious and he was likely to be an extremely slow reader in English.

The finding that the students who scored Grade A or Grade B read texts quite well, while others who scored Grade C and D did not read texts so well had implications for my study. It suggested that I would need to make students work in pairs or groups that have at least one student who reads English well since the literature indicates that 'trying to process text strategically' could be an anxious time for students (Almasi 2003: 63). Therefore, having a more 'knowledgeable other' (Vygotsky 1978) in each group could give students who had low reading ability an opportunity to use other students as a resource, especially when it was difficult for me to provide one-on-one assistance to all students during reading lessons since they were large in number.

5.1.5 Students' lack of interest in reading

I also found at the start of the study that most of the students of my class were not interested in reading texts of any type including academic texts. Specifically, 'only three students like to read novels and two students like to read Islamic books' (Extract from teacher-researcher's journal, 22.01.13). Interview data highlighted that among my participating students those who had very good or good reading ability, Saba and Furqan respectively, liked to read novels. However, they did not like to read academic texts:

> I have never taken reading seriously. I just read if I am given the article (...) I only like to read novels.
>
> (Extract 5.11, Saba's interview, 12.02.13)

> Novel is very interesting I think (…) while the text books (…) it's not something we are very interested in.
>
> (Extract 5.12, Furqan's interview, 12.02.13)

Unlike Saba and Furqan, a student who had low reading ability was not interested in reading of any kind at the start of the study:

> Since your classes have started I have started reading.
>
> (Extract 5.13, Translated from Ali's Interview, 12.02.13)

The finding that all four participating students did not like to read for academic purposes, whereas two did not like to read for pleasure had implications for the study. It suggested that I needed to take action to stimulate students' interest in reading since in the intervention stage of the study I planned to encourage students to use reading strategies. However, since it takes time and energy 'to engage in cognitive and metacognitive strategies during reading' (Garner 1987: 20), it was unlikely that students would invoke strategies during the study till they had motivation to do so (Paris & Cross 1983; Paris et al. 1983).

5.1.6 Development of students' interest in reading

Although most of the students at the start of the study did not display an interest in reading, the data reveals that during the initial investigation stage students' interest in reading began to develop. This appeared mainly to be the result of the measures I took to stimulate their interest in reading. In more detail, during the lessons on the reading test and the SORS questionnaire that aimed to assess and enhance students' metacognitive awareness of reading strategies I employed motivational teaching practices that the literature indicates could foster students' interest in language learning (Guilloteaux & Dörnyei 2008). For instance, I informed students that I was administering the test for pedagogic purposes, as I wanted to plan the upcoming lessons keeping their ability levels in view. I also brought to students' notice that the test would help them become aware of their reading ability as well. I shared these

details since making students aware of the usefulness of an activity could motivate them towards learning (Guilloteaux & Dorneyi 2008). Apart from that, during the lesson I facilitated peer checking on the test paper and elicited from students what they thought were the right answers to the test items they were checking. I did this since reviewing/correcting their own or peers' work and 'going over the answers of an exercise with the class' could stimulate students' motivation (Guilloteaux & Dörnyei 2008: 64).

Not surprisingly, the lesson stimulated some students' interest in developing their reading skills. The data shows that students appeared keen to improve their reading skills so as to get good marks in the mid-term test as is noticeable from the following extracts:

> *Perhaps I did not secured good marks but now I will try my level best to goal good marks in test.*
>
> (Extract 5.14, Anonymous exit slip, 23.01.13)

> *From this class I seek this thing that my English vocabulary is really very weak so I want to learn more from my teacher that I can be able to pass my midterm examination with a good marks.*
>
> (Extract 5.15, Anonymous exit slip, 23.01.13)

Although students appeared interested in developing reading to garner the extrinsic rewards of getting good results in future rather than to master their reading skills for deriving intrinsic satisfaction, I regarded this as a good beginning since the research indicates that 'the setting of *proximal subgoals* (e.g. taking tests, passing exams, satisfying learning contracts) may have a powerful motivating function in that they mark progress and provide immediate incentive and feedback' (Dorneyi 1998: 121). In

addition, research indicates that extrinsic rewards can even lead to intrinsic motivation under certain circumstances (Dorneyi 1998). Most importantly, the literature points out that it is not crucially important whether motivational factors are intrinsic or extrinsic to the learning process, but whether they are self-determined or externally imposed by others (Ushioda 2008).

During the lesson on the SORS questionnaire, I also tried to increase students' interest in reading, as mentioned before. In this lesson in addition to sharing with students the purpose of filling in the questionnaire, I asked them to write personal learning goals. I did this since the literature indicates that increasing students' goal-orientedness motivates them towards language learning (Dorneyi & Csizer 1998). In addition, the literature indicates that 'for action to take place, goals have to be set and pursued by choice' (Dorneyi 1998: 120) as wanting and choosing an activity can be intrinsically rewarding (Dorneyi & Csizer 1998). Furthermore, the literature indicates that planning and goal-setting process 'helps learners in developing and exercising metacognitive skills through which they come to manage and regulate their learning' (Ushioda 2014: 36).

As expected, the lesson stimulated some students' interest in reading. For instance, Saba who did not take reading seriously (also see Extract 5.11) started considering reading to be important. This is noticeable from the following comment made by her on exit slip:

> *The survey was informative. We got to know different strategies about reading. Most importantly, it enhanced in me the importance of reading, as before I never took it that seriously.*
>
> (Extract 5.16, Saba's exit slip, 06.02.13)

Some students also appeared keen to find out how to improve their reading skills as noticeable from the goals they wrote at the end of the lesson:

> I need to read more. I don't read a lot. I have to find out how to be a better reader.
>
> (Extract 5.17, Samia's note, 06.02.13)

> I don't know what should be do (done) to become (a) good reader. How can I know?
>
> (Extract 5.18, Anonymous note, 06.02.13)

Although it was not clear from the goals students wrote whether they wanted to develop their reading skills to become skilful readers and/or to perform well in the exam, I felt that their keenness to develop their reading provided me with a good launch pad to introduce reading strategies during the intervention stage of the study. It also seemed to me that, if these students began to think that reading is important, the possibility of my convincing them and perhaps others that strategies play a role in improving comprehension increased. It was important to do so since it is well established in the literature that success in strategy instruction depends to a large extent on the capacity of the teacher to convince students that strategies are useful in improving their reading comprehension (Ciborowski 1999 as cited in Mokhtari et al. 2008).

5.1.7 Change in students' awareness of the reading strategies

During the initial investigation stage the SORS questionnaire increased some students' awareness of the reading strategies (see Extract 5.16). It also seemed to have helped some students take a stock of their current reading practices and made them self-aware. This is noticeable from the following comments on the exit slips:

Today I have an interesting strategy from which I came to know that how carefully I read my academic course and what are the negative points in my reading.

(Extract 5.19, Anonymous exit slip, 06.02.13)

After doing this activity I know myself better than before.

(Extract 5.20, Anonymous exit slip, 06.02.13)

The previous extracts indicated to me that while the student who wrote the first comment considered the questionnaire to be a yardstick of his/her reading performance, both the students thought that the questionnaire made them aware of their use of strategies during reading. However, I wondered during the initial investigation stage if the students had made these comments because I shared with them that the lesson might help them think about and become aware of what they did or could do while reading academic material. To put it another way, I wondered if I had influenced my students' thinking with respect to the outcomes of the lesson. I became a bit more confident that the SORS questionnaire did raise some students' awareness of the reading strategies when students started writing their learner's diary during the intervention stage of the study. In their diaries some students named the strategies they thought they learnt as a result of filling in the questionnaire. For instance, Saba reported that after filling in the questionnaire she became aware of certain reading strategies:

After looking at our current pathetic situation in the reading test our teacher aided us by asking us to fill the questionnaire to analyze the techniques we know and don't know that helps in reading. The handout consisted of the 30 most effective and widely used strategies, globally. After filling this, I actually realized that "Oh My God! Was I dead all this time?" There were so many about which I never heard of. I didn't know that prediction and activating prior knowledge existed, forget the use. In my mind there

> was a little concept of being attentive while reading, but the concept of paying attention to the title, or thinking before reading was something very new.
>
> (Extract 5.21, Saba's diary, 12.03.13)

Here, Saba reported that she gained declarative knowledge of some of the top-down strategies such as prediction and activating prior knowledge, amongst others. It appears from the extract that Saba considered the questionnaire an aid that could help in reading better. In addition, it seems that the questionnaire helped Saba become aware of the fact that there is a lot in the domain of reading that she was unaware of. What is noteworthy here is that Saba's evaluation of her prior knowledge of reading strategies was affectively charged as can be seen from the phrases she used to describe what she realized after filling in the questionnaire: 'Oh my God! Was I dead all this time?', 'I did not know…forget the use' and 'was something very new.' This indicated to me that her metacognitive knowledge of self and the metacognitive experience she had during and after filling in the questionnaire had a cognitive as well as an affective character.

The finding that some students began to gain knowledge of reading strategies during the initial investigation stage made me realize that the questionnaire started the process of change that was planned for the intervention stage of the study. In other words, it appeared that the questionnaire initiated the process of promoting metacognition of reading strategies in some students as they started reflecting on what they knew and did not know when it comes to reading strategies. This set the stage for the upcoming intervention stage of the study.

What is noteworthy, however, that the interview established that those participating students who had average or poor reading ability did not understand all statements

given in the questionnaire. For instance, Khadija thought that critically analysing and evaluating means making a note of what she has read:

> Researcher: 'I critically analyze and evaluate the information presented in the text' and you have marked that you always do this.
>
> Khadija: (read sentence) yes mam like if something is important or like information presented I also I marked it like wrote in my cupboard I have a sticker paper on that and I think I read this and (…) I have read this in it.
>
> (Extract 5.22, Khadija's interview, 12.02.13)

In addition, I noticed that she interpreted the terms 'read slowly and carefully' as 'reading silently' during the interview:

> Researcher: I read slowly and carefully to make sure I understand what I'm reading and you have marked that you always do this.
>
> Khadija: Yes mam as I told you.
>
> Researcher: Right and why do you do this?
>
> Khadija: aaaa (…) so (…) in (…) like silently if I read so I think like its help me a lot. Like I know that what is what am I reading and I don't like noise at all.
>
> (Extract 5.23, Khadija's interview, 12.02.13)

This finding made me realize that only using a questionnaire in a study to draw conclusions regarding students' awareness and use of reading strategies seems inappropriate, even though it is a common practice in large scale quantitative studies in the field of reading strategies (e.g. Sheorey & Mokhtari 2001; Malcolm 2009; Zhang & Wu 2009; Mohammadali & Negin 2014). On the basis of this finding I decided that in the second cycle of the study I would employ TAPs along with the questionnaire at the start of the cycle as well so as to arrive at a more reliable understanding of students' awareness and use of reading strategies.

5.2 Intervention

The intervention stage comprised a total of eighteen lessons that took place between February and May 2013. The lessons were 60 minutes long each. The major aim of the lessons was to promote metacognition of reading strategies in students. For this purpose, all the students maintained a diary throughout the cycle to reflect on their awareness, use and regulation of reading strategies. They also provided feedback at the end of most of the lessons by means of exit slip. The section below presents the findings from the lessons I took during the intervention stage.

5.2.1 Promoting students' metacognition of selected reading strategies

In total, I focused upon five reading strategies during the intervention stage. To promote students' metacognition of the reading strategies, I used the texts and the tasks given in the assigned textbook as they provided students with opportunities to practice the selected reading strategies. However, since the textbook did not provide explicit instruction on the value or utility of strategy use as mentioned in Section 2.2.2, I encouraged students to think about and discuss when, why and how (conditional and procedural knowledge) to use the strategies introduced during the lessons (see for example Sections 5.2.1.1 and 6.2.1.1). I also provided students with opportunities to plan, monitor and evaluate their use of the strategies so as to help them regulate their reading during carrying out the tasks given in the prescribed textbook (see for example Sections 5.2.1.2 and 6.2.1.3). During the lessons I also kept in view the instructional principles suggested by the literature for promoting metacognition of reading strategies. These principles included 'teacher and expert student modeling, reflection on the part of students, and group activities that allow students to share their knowledge about cognition' (Schraw 1998: 123) (see for example Sections 5.2.1.1 and 6.2.1.1). Through collaboration and dialogue I also

provided students with regular opportunities to reflect on their and other students' use of the strategies. Moreover, I did not follow the lesson plan rigidly during the intervention. Rather, I co-constructed the lessons in response to students' responses 'live in the moment' (Underhill 2014: 2). This is in keeping with the research on language learning strategy that points out that 'as opposed to strict teacher control, strategy learning is more cognitively situated in student needs' (Baker 2002: 82). During the intervention, I recorded my observations, feelings and analysis in my researcher journal. In this section, I will describe and reflect on my lessons that provided metacognitive strategy instruction on the selected reading strategies. I will do so since metacognitive strategy training studies suffers from 'lack of specificity' with respect to the published description of the methods used (Carrell 1998b: 12). I will also integrate students' voices to reveal students' perception and feedback on what happened in the lessons to present a multilayered rather than a singular perspective on the experience.

5.2.1.1 Prediction and activating prior knowledge

The first reading strategy I provided metacognitive strategy instruction on was the strategy of prediction. I taught this strategy since the reading text in Unit 2 of the textbook titled 'Neelum Valley: A Gem to Treasure' is designed to give practice to students on it. I facilitated three lessons on this reading text on the 12th, 13th and 26th of February 2013. To discuss what I learnt about the metacognitive strategy instruction from the lessons I present below an extract from my journal that illustrates how these lessons unfolded:

I opened the lesson by eliciting from students the meaning of the term 'prediction'. Next, I asked students to predict what the text could be about by looking at the title of the text as per the instructions given in Activity 2.

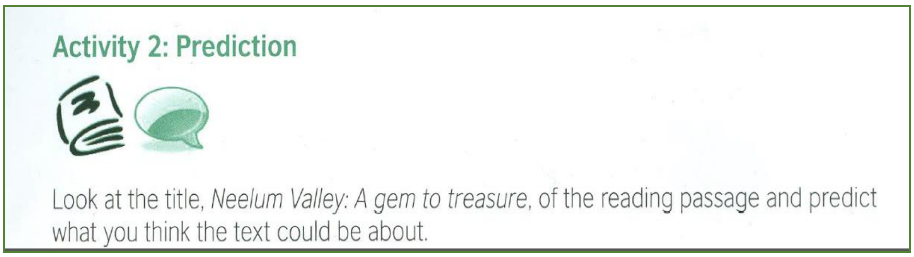
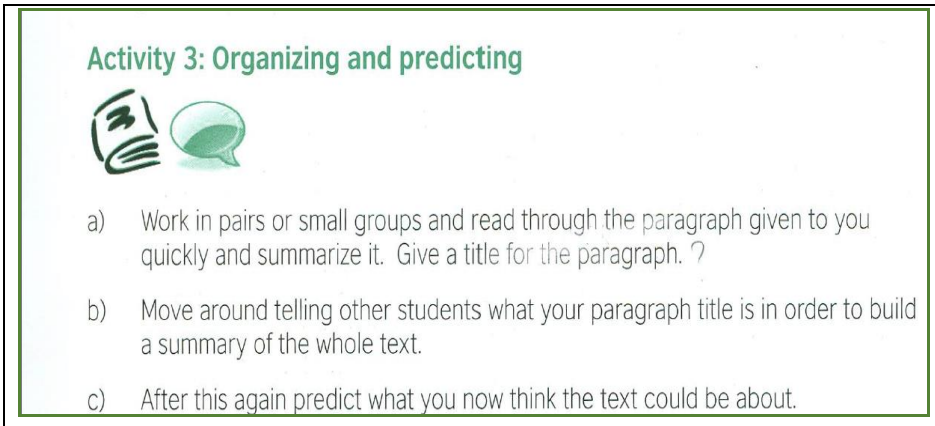


Figure 5.1 Prediction activity

However, when students remained quiet even after my repeated instructions, I wondered if I needed to activate their prior knowledge on the topic of the text. I therefore asked them if they knew what a valley is. One of the students gave me the meaning of the term valley on this. I then asked them what they think 'Neelum Valley' is. Another student replied that it is the name of a valley. Next, I asked students if they could guess if it is in Pakistan. On this question a student by the name of Tahseen replied that it is near Murree. She further added that she had been there and that it is beautiful. To help students to guess what the text could be about I asked the class why they think the writer has called Neelum Valley 'a gem to treasure'. While Furqan replied that it could be because the place is very beautiful, Tahseen stressed again that it is very beautiful indeed. To stimulate students' interest in the topic of the text, I shared with them some of the details of the Neelum Valley as I have visited it several times. I told students about the beautiful, fast flowing Neelum River and the 'charpai' that were kept by the locals for tourist attraction in the small river that flows into it. I also told them how cold the water was that was flowing underneath the 'charpais' and what lovely food was available for one to eat in the cold breeze. During my description of the

place I noticed some students started nodding their heads excitedly, while others listened to me attentively. Many students at the end of description said that they would like to visit it someday. Seeing students' involvement in the topic, I asked them to individually predict what they think the text would be about. Then, I facilitated a pair discussion on their predictions followed by a whole class discussion. During the discussion I also made predictions about the text to model the strategy of prediction. However, I did not tell students what I was doing is called teacher modeling since I felt that would break the flow of the lesson. Students listened to me carefully during my modelling. They also appeared excited throughout the discussion. Next, as per my plan I wanted to facilitate a discussion on the when, why and how to use of the strategy of prediction and activating prior knowledge. However, I postponed it since the students appeared too keen to read the text to check if their guess was correct. While one student asked me if he could read it now, others were giving the text a quick read. Understanding students' keenness to read the text, I decided to facilitate the activity 3 (see Figure 5.2) given in the book. The activity required students to select the main idea of one of the given paragraphs in groups to later make predictions on the basis of it. I therefore divided students into groups (see Picture 5.1) and informed them that they would practice the strategy of identifying the main idea during the task.



Activity 3: Organizing and predicting

a) Work in pairs or small groups and read through the paragraph given to you quickly and summarize it. Give a title for the paragraph. ?

b) Move around telling other students what your paragraph title is in order to build a summary of the whole text.

c) After this again predict what you now think the text could be about.

Figure 5.2 Predicting on the basis of the main idea activity

Students appeared even keener to read the text by the end of the activity. However, since the class came to an end I asked them to read it in the next lesson. In the next lesson I asked students to read the text individually to check if their predictions were accurate or not. This was followed by a pair and whole class discussion on the task and the text.

Picture 5.1 Students working in groups

Towards the end of the lesson I asked students to fill the SEM in individually (see Table 3.1, p. 75) on the strategies of prediction, activating prior

knowledge and identifying the main idea so as to help them think about how, why, where and when these strategies could be used. In the next class I facilitated a pair discussion followed by a whole class discussion on the procedural and conditional knowledge associated with using the strategies of prediction and activating prior knowledge. I did not discuss these aspects of metacognitive knowledge of the strategy of identifying the main idea since I intended to do so in the lesson that is designed to give practice on it.

(Extract 5.24, Teacher-researcher's journal, 13.03.13)

From the above extract it can be seen that during the lessons I learnt a vital point about the nature of metacognitive reading strategy instruction. I realized that it was not possible for me to focus on only one strategy in isolation as per the objective of Unit 2 of the textbook. This became apparent to me when I noticed that in order to help students predict what the text could be about (see Figure 5.1, p. 140), I needed to activate their prior knowledge on the topic of the text. I took the decision to introduce the strategy of activating prior knowledge in the act of teaching for two reasons. First, I knew from my readings of the literature that 'predicting is based on the thoughtful use of prior knowledge' (Duffy 2009: 101). That is 'readers use their prior knowledge about the topic as the basis for making the prediction' (ibid.). Second, I remembered from the analysis of the SORS questionnaire that most of the students reported that they did not activate their prior knowledge before reading during filling in the questionnaire (see Section 5.1.2). The decision I took appeared appropriate as it was later confirmed from learners' diaries as well that the majority of the students were not aware of this strategy. In this regard, for instance, Saba and Furqan who had good reading ability wrote:

> I didn't know that prediction and activating prior knowledge existed, forget the use.
>
> (Extract 5.25, Saba's diary, 12.03.13)

> I never integrated and compared my prior knowledge with whatever I was reading.
>
> (Extract 5.26, Furqan's diary, 18.03.13)

What further triggered my realization that I could not only focus on the strategy of prediction during the lessons was the fact that due to the nature of the next task (see Figure 5.2, p. 142), I had to introduce the strategy of identifying the main idea to students as well, since they had to make predictions on the basis of it (see Extract 5.24). This acted as a catalyst for my decision that I needed to raise students' awareness on the nature of strategic processing from the start of the intervention. I therefore informed students that many strategies 'are essential component of other strategies' (Almasi 2003: 106) as they fit together and support each other. This was in keeping with the literature that states that 'students need to see how strategies can be mutually supporting' (Oxford 1993: 181).

Besides that, I also began to understand the nature of metacognitive reading strategy instruction when I realized that promoting metacognition of reading strategies is a dynamic, emergent and locally constituted process. I realized this when I noticed that I needed to change the lesson plan in the act of teaching in my attempt to sustain students' interest in the text and the tasks. In more detail, as is noticeable from Extract 5.24, as per my plan I did not explain to students why the prediction strategy is important soon after eliciting from them what they think the strategy of prediction is. I did this since the students appeared motivated to continue the activity and I realized that any interruption could change students' level of interest and excitement. It

appears that the decision I took bore positive results as the students remained involved and interested in the text and the task throughout the lesson. In these lessons I also did not ‘explain’ to students why the strategies of prediction and activating prior knowledge are important and when and where to use them as per the principle of explicit instruction (see Section 3.2.7). Rather, I asked students to fill the SEM in individually (see Table 3.1, p. 75) to transfer the responsibility of thinking about the metacognitive knowledge associated with using the strategies to the students. Later I facilitated a pair followed by a whole class discussion on the why, when, where and how the introduced strategies are used. I first gave students experience of making prediction and using the strategy of identifying the main idea to make predictions (see Figure 5.2, p. 142) and then facilitated a discussion on the why, when, where and how to use these strategy for a number of reasons. First, I did not want to disrupt the flow of the activity as students appeared very engaged in the task. Second, I wanted students to first experience using the strategies rather than discuss the procedural and conditional knowledge associated with using them as they were applying these strategies for the first time in my class. Third, I thought that the experience of activating prior knowledge and making predictions would help students to reflect on 'how' they used these strategies in the lesson.

A month later, on the 25th of March 2013, I provided students with a further opportunity to revisit and practice the strategies of prediction and activating prior knowledge on the text 'The Pride of Pakistan'. I did this since it is well-established in the literature that students should be provided with multiple opportunities to practice strategies (Almasi 2003), as learning to become a strategic reader takes a long time (Pressley 2000). During the lesson I also tried to help students ‘see’ the cognitive processing involved in reading by means of teacher think aloud and collaborative

student think aloud. In this particular lesson I planned to make the covert reading processes overt for students since the literature points out that 'the thinking that underlies strategic processing is often very abstract and internal. It is essential to make these thought processes as visible as possible and to assist students in learning how to become metacognitively aware of when and where strategies are used' (Almasi 2003: 53). Following the agenda, I performed teacher modeling on the strategies of prediction and activating prior knowledge. The following extract from my journal illustrates the steps I took during teacher modeling:

> I informed students that I would be performing 'teacher modeling' to make my invisible reading process visible to them. I asked them to take a note of what strategies I used while reading. I also informed students that I would inquire from them where, when and how I used the strategies during teacher modeling. I opened teacher modeling by predicting what the text could be about by looking at its title. Next, I glanced at the sub headings and commented that the text seems to be about various famous Pakistanis who are the source of pride for Pakistan. Following that, I shared whatever prior knowledge I had about 'Abdul Sattar Edhi' since the first subheading had his name in the title. During reading I made comments whenever my prediction came true. For instance, on reading the fourth sentence of the first subheading of the text 'The Pride of Pakistan' I commented that my guess was correct that the Edhi foundation runs the world's largest ambulance service. At the end of modeling I elicited from students what they noticed while I was modeling. Majority of the students reported that I had set goals for reading by predicting what the text is about and I also generated questions that I thought would get answered in the text. Moreover, I activated my prior knowledge about Edhi. For the benefit of those who might not have noticed the strategies used by me I asked students to point out where in the text I had used the

> strategies mentioned by them. This I hoped would also foster conditional knowledge associated with using the strategies in students. I also asked students to explain how I used the strategies. Before the end of the discussion, I also informed students why I used predicting and activating prior knowledge during reading. Besides that, I asked students to identify other texts in which they might use the strategies I used during the think aloud.

(Extract 5.27, Teacher-researcher's journal, 25.03.13)

The above extract illustrates that during teacher modeling I tried to scaffold students' understanding of how the strategies of prediction and activating prior knowledge could be used during reading. Moreover, I tried to cognitively engage students during teacher modeling by asking them to take a note of the strategies I used during reading.

In addition to teacher think aloud, I provided students with an opportunity to become aware of their own and their partners' use of reading strategies through collaborative student think aloud. I tried to help students verbalize their thought processes during reading since it builds metacognitive awareness (Almasi & Hart 2011) and support readers to monitor their own comprehension (Wilhelm 2001). I assumed that students would be able to talk about their use of strategies in front of their peer during the think aloud since the literature indicates that 'all language learners, no matter what their level, possess cognitive control over their learning efforts and can talk about their own mental processes' (McDonough 2001: 324). For this purpose, I paired students up and informed them that one of them would first be a speaker who would think aloud whatever he/she would do during reading a paragraph of the text 'The Pride of Pakistan', and the other student would be a listener whose job would be to take notes of all the strategies that his/her partner had used while reading. The speaker had to write down the strategies he/she had used while reading at the end of think aloud too.

I informed students that at the end of the think aloud the listener would discuss which ever strategy he/she thought his/her partner had used during think aloud to check for the similarities and differences in their notes. I also informed students that their roles would switch after performing this task on two paragraphs. While pairing students up I ensured that the student who scored Grade B in the test would sit with those who either scored C or D. It was possible to do that since 17 students had scored grade B in WELT and the students who scored grade C were 10 and those who scored D were 3 in number. Huang and Nisbet (2012: 5) state that such 'cooperative grouping structure provides scaffolding for lower proficiency students'.

On reflecting on the lesson, I realized that think aloud plays an important role in promoting metacognition of reading strategies in students. I first realized this when I noticed that most of the students found teacher modeling useful as it helped them understand how to think and use strategies before reading a text. In this regard, for instance, Ali who had poor reading ability wrote in his diary that during teacher modeling students took note of procedural (the 'how') and conditional (the 'where' and 'when') knowledge associated with using the strategies. This, in turn, he thought resulted in the use of strategies by students:

> When teacher think loudly we note how she thought, where she use self-questioning thought, where she use rereading, where she predicting etc. when we watch it, listen it, note it then offcourse we use it also.
>
> (Extract 5.28, Ali's diary, 05.04.13)

Along similar lines, Saba who had very good reading ability wrote in her diary that teacher modeling provided procedural knowledge associated with thinking and using the strategy of prediction to students:

> When we were modeled the text "Pride of Pakistan" we actually came to see how our mind should think, how should we predict when reading.
>
> (Extract 5.29, Saba's diary, 23.04.13)

What further helped me realize the importance of think aloud in facilitating metacognition of reading strategies was that I noticed that the exit slips indicated that students of all proficiency levels thought that the 'other' had played a significant role in raising their awareness of reading strategies during the student think aloud activity. For instance, Saba who had good reading ability found think aloud activity useful as it helped her 'see, evaluate and learn ideas and self-questioning from other people' (Extract from her exit slip, 25.03.13). On the other hand, students who had poor reading ability also felt that they learnt strategies from others. For instance, Usama who had poor reading ability found think aloud useful as it 'gave an idea that what other person thinks and what he used strategies of reading' (Extract from his exit slip, 25.03.13). This finding got further validated from data from learners' diaries. For instance, Ali who had poor reading ability listed in his diary how he benefitted from think aloud:

> This (think aloud) strategy used by teacher, and good for us we know that after the discussion of pairs what the idea, style, what strategies he/her use where he predict, where he do self-questioning and so on. (Lines deleted). Always my partner think differently with me but some strategy same to my strategy that was good. This activity give self-confident also, and due to this activity give ideas or good think of other person.
>
> (Extract 5.30, Ali's diary, 05.04.13)

Here, Ali reported that he gained declarative and conditional knowledge associated with using the strategies as well as self-confidence as a result of think aloud. The extract indicates that the think aloud made Ali aware of the intra-individual

differences in the use of strategies between him and his partner. The extract also indicates that the metacognitive experience of carrying out the think aloud activity was filled with positive affect for Ali. Thus, it appears that Ali's metacognitive experience of carrying out collaborative think aloud had both a cognitive and an affective character, just like that of Saba (see Section 5.1.7).

The data also shows that some students not only learnt a new strategy from their partner during think aloud but also used it during later reading as can be seen from this comment:

> *Today class is a good class. Thinking aloud is good for me. I learn from my partner that when she read aloud she questioning himself about the text which is helpful to her. In second text I also use this strategy which is helpful to me also.*
>
> (Extract 5.31, Anonymous exit slip, 25.03.13)

This finding reminded me that think aloud provides students with the opportunity to observe thought processes of their peers before trying to accomplish similar tasks on their own (Almasi 1995).

Overall, it appears from the data that students liked the think aloud activity, since it made the invisible reading process visible to them to a certain extent. This is in keeping with the literature that suggests that overt collaborative verbalization of strategies during peer interaction is a more effective means of mediating learning than instruction in learning strategies in the absence of overt verbalization of these strategies (Swain 2000).

It seems important to mention here that while the data indicates that most of the students found overt collaborative verbalization of strategies during think aloud

useful, it also shows that for some students performing collaborative think aloud was challenging while for others it was simple. For instance, Furqan found that it was 'not natural for me' (Extract from Furqan's diary, 08.04.13). In particular, Furqan found the think aloud challenging since during it he 'was not thinking aloud actually', rather he 'was thinking what to think aloud' (Extract from Furqan's diary, 08.04.13). On the other hand, Ali found it to be 'so simple' (Extract from Ali's diary, 05.04.13).

Since a few students had found think aloud challenging, I decided to ask a volunteer student to perform a think aloud on the use of his/her strategies in front of the class in the next lesson. I thought it would be useful for students to see yet another student think aloud since there is research evidence that 'students are better able to model cognitive and metacognitive skills, and provide a powerful rationale for these skills within the student's zone of proximal development, compared to teachers' (Schraw 1998: 118). Moreover, it is found that with the help of modeling by more knowledgeable peers 'students can perform tasks that they may not be able to do independently' (Almasi 2003: 61). In keeping with the agenda, in the next lesson Fatima voluntarily performed think aloud on the last paragraph of the text 'The Pride of Pakistan'. Students did not get an opportunity to read this paragraph in the previous lesson. During her think aloud the rest of the students took notes of the strategies she used while reading. At the end of her think aloud I asked students to share which strategies she had used while reading. Most of the students pointed out that she had used the strategies of prediction, activating prior knowledge and rereading. Although it appeared from students' feedback that they had started understanding the think aloud better with the help of student modelling, I decided that in the second cycle I would make students think about their use of strategies first individually, and a little

later in the study would introduce the collaborative think aloud as that might make students feel more confident in performing it.

In conclusion, the lessons on the strategies of prediction and activating prior knowledge taught me some important points regarding metacognitive reading strategy instruction. For instance, I learnt that it is important to respond to students' emerging needs and to meet them where they are in their thinking during instruction since the process appeared to be a dynamic and fluid one. I also learnt that verbalization of thought processes during reading by teacher and students helped raise students' awareness of reading strategies.

5.2.1.2 Identifying the main idea

The second reading strategy I provided metacognitive strategy instruction on was the strategy of identifying the main idea. I selected this strategy for two reasons. First, students' had already filled the SEM (see Table 3.1, p. 75) in on it as they used the strategy of identifying the main idea for making predictions on the basis of it (see Extract 5.24). Second, the next two units of the textbook, Unit 3 and Unit 4, were designed to give practice to students on this strategy.

I facilitated a lesson on the text titled 'Obtaining and Giving Information' from Unit 3 on the 2nd of April 2013. In this lesson I first elicited from students if they know what the term 'main idea' refers to. Next, I provided metacognitive knowledge on the nature of the main idea to students. That is, I informed students that 'main idea refers to the big idea or the most important idea found in text' (Duffy 2009: 138). I then facilitated a pair, followed by a whole class discussion, on the SEM students had earlier filled in on the why, when and where to use the strategy of identifying the main idea (see Extract 5.24). While discussing why it is important to know how to find the

implicit main idea in a paragraph I informed students that 'many paragraphs have unstated main ideas', and if they can figure out what these main ideas are, they are likely to understand the text they read (Baumann 1984: 108). This was followed by teacher modeling of the strategy. The students then practiced using the strategy of identifying the main idea by carrying out a slightly modified version of activity 2 given in the textbook (see Figure 5.3). That is, students individually extracted the main idea of all the paragraphs given in the text. I asked students to work individually rather than in groups as per the given task since earlier they had correctly identified the main idea in groups during the lesson on the strategies of prediction and activating prior knowledge (see Section 5.2.1.1) and I thought I could move them towards using the strategy individually now.

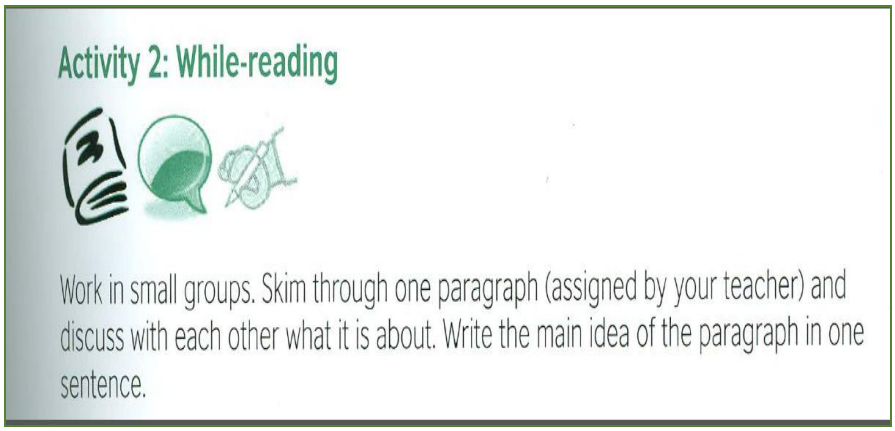


Figure 5.3 Identifying the main idea activity

On reflecting on the lesson I noticed that the instructional steps I took to promote students' metacognition of the strategy of identifying the main idea differed from the ones I took in the lessons on the strategies of prediction and activating prior knowledge. As is noticeable from Table 5.2 as compared to the lessons on the strategies of prediction and activating prior knowledge, in this lesson I facilitated a discussion on the why, when and where to use the strategy of identifying the main

idea at the start of the lesson since students already had a prior experience of using it (see Figure 5.2, p. 142). Also, since students had filled in the SEM for the strategy of identifying the main idea before (see Extract 5.24), it appeared logical to me to facilitate a discussion on the why, when and where to use this strategy at the start of the lesson. Table 5.2 provides an overview of the differences in the instructional steps I took to provide metacognitive reading strategy instructions on the taught strategies:

Table 5.2 Instructional steps taken to promote metacognition of the taught strategies

Components of Metacognitive Strategy Instruction		**Strategy Declarative Knowledge (What)**	**Strategy Significance (Why)**	**Strategy Procedural Knowledge (How)**	**Strategy Conditional Knowledge (Where & When)**	**Strategy Evaluation**	**Guided Practice**
Facilitated mainly by means of		Whole Class Discussion	Strategy Evaluation Matrix (SEM)	Teacher Modeling (TM) & Strategy Evaluation Matrix (SEM)	Strategy Evaluation Matrix (SEM)	Strategy Log (SL) & Regulatory Checklist (RC)	Activities
The order in which the components were taught in the lessons	**Neelum Valley: A Gem to Treasure** Main strategies taught: Prediction and Activating Prior Knowledge	A	E	C (TM)	E	X	B
				E			D
	Obtaining And Giving Information Main strategy taught: Identifying the Main Idea	A	B	B	B	X	D
				C (TM)			

In this lesson I learnt that some students thought that the SEM armed them with knowledge about how, when and why strategies should be used. Later, students also reported in their diaries that filling in the SEM helped them think about the metacognitive knowledge of the taught strategies as noticeable from the following extract from Furqan's diary as well:

> The assignment of "How, when and why to use" on each of the strategy made us think thoroughly about each of the strategy, taught us how to apply each and every strategy.
>
> (Extract 5.34, Furqan's diary, 25.05.13)

It can be seen from the extract above that the SEM helped students' gain procedural knowledge (the 'how') associated with using the strategies.

As regards the use of the strategy of identifying the main idea, I noticed that while students did not find extracting the main ideas difficult in groups while carrying out an activity on the text 'Neelum Valley: A Gem to Treasure', some students found identifying the main idea challenging working individually this time. This is noticeable from the extract below:

> *"Discomfort" is the right word for main idea. The handouts we received were provoking. I'm facing difficulty in prediction and a little in main idea.*
>
> (Extract 5.35, Furqan's exit slip, 02.04.13)

The above extract reveals that Furqan faced difficulty in using the strategies of prediction and identifying the main idea. His metacognitive experience of the use of the strategy of identifying the main idea was filled with negative affect as was noticeable from the term 'discomfort' he used to share his feelings about it. Moreover, his metacognitive knowledge of self was emotionally charged as can be seen from the fact that he mentioned that 'I'm facing difficulty'.

Similarly, another student's metacognitive experience of using the strategy of identifying the main idea was not too positive as noticeable from the extract below:

The usage of strategies is getting clear in my mind but the finding of main idea is still confusing.

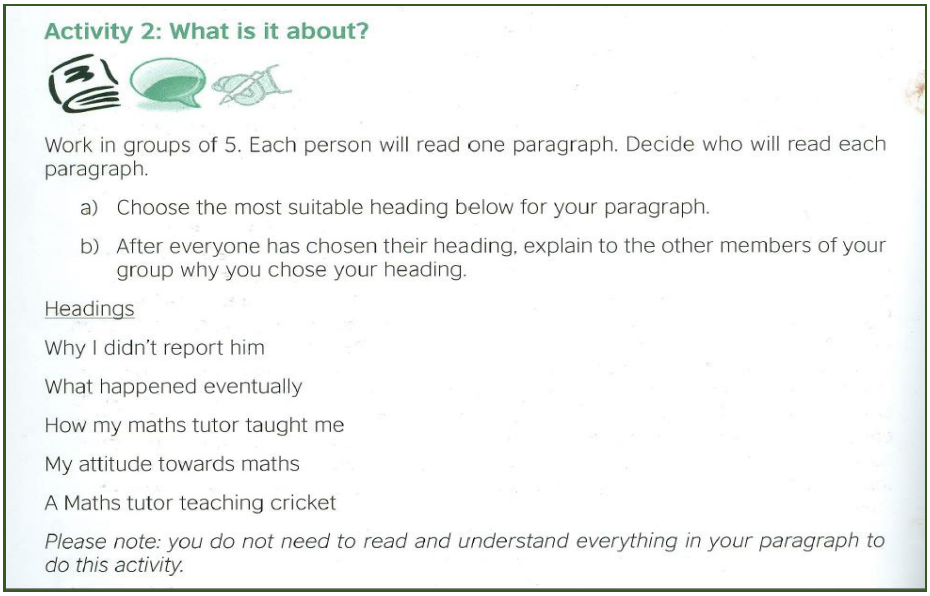
(Extract 5.36, Anonymous exit slip, 02.04.13)

Perhaps because some students were not able to identify the main idea of the paragraph effectively they asked me to give them further practice on the strategy of identifying the main idea. This is evident in the following exit slip:

Mam its too hard still to work on main ideas. Please give us some more texts and practice assignment so we will get some comfort side.

(Extract 5.37, Anonymous exit slip, 02.04.13)

On the basis of feedback from students I decided that in Cycle 2 if I would facilitate this task I would ask students to carry out the activity in groups so that they could scaffold each other. For this cycle I thought that it would perhaps be better to give students further practice of individually using the strategy of identifying the main idea. In the next lesson I asked students to individually read the entire text 'A Painful Memory?' to match the given headings with the paragraphs given (see activity 2, Figure 5.4). I also asked them to mark evidence in the text that showed that their answer was logical. In addition, as per my reflection on the lesson on the text titled 'The Pride of Pakistan' I asked students to take a note of each strategy they were using to carry out the task in the column on the left side of the text. Recall that I decided that I should ask students to think about their use of strategies individually first (see Section 5.2.1.1). I asked students to note down the strategies they used during reading for two other reasons as well: first, to raise students' metacognitive awareness of the strategies they used to perform the given task; and second, to help students to start monitoring their use of strategies.



Activity 2: What is it about?

Work in groups of 5. Each person will read one paragraph. Decide who will read each paragraph.

a) Choose the most suitable heading below for your paragraph.

b) After everyone has chosen their heading, explain to the other members of your group why you chose your heading.

Headings

Why I didn't report him

What happened eventually

How my maths tutor taught me

My attitude towards maths

A Maths tutor teaching cricket

Please note: you do not need to read and understand everything in your paragraph to do this activity.

Figure 5.4 Identifying the main idea activity

I noticed during the lesson while viewing the notes that students took in the column on the left side of the text that different students used different combinations of strategies for carrying out the same task of matching headings with paragraphs. For instance, Ali noted using the strategies of self-questioning, prediction, re-reading, and scanning, while Khadija noted using the strategies of rereading, pausing, prediction and using dictionary in the column on the left side of the text. What they noted later corroborated with the data from interviews and learners' diary as noticeable in the extracts given below:

> Researcher: What do you think you did while you read this (points to the text)?
>
> Ali: Strategies which I use scanning, self-questioning, predict, reread these strategies important need for me in this task.
>
> (Extract 5.38, Ali's Interview, 17.04.13)

> I do rereading, dictionary using, predictions and self-answering.
>
> (Extract 5.39, Khadija's diary, 09.04.13)

The above extracts, on a different note, reveal that Ali and Khadija were metacognitively aware of the strategies they used while reading.

I also noticed during the lesson that the participating students successfully matched the given headings with the appropriate paragraph. This implied that the students had used the appropriate strategies for performing the task. Their use of several strategies to perform the task also suggested that they had perhaps started to 'orchestrate strategy use rather than following a scattered approach' (Oxford 1993: 183). Moreover, it suggested that the students began to read like strategic and self-regulated readers in as much as they were 'distinguished by their ability to match appropriate strategies to the reading situation' (Griffith & Ruan 2005: 8). Just so, self-regulated readers 'orchestrate a variety of strategies as they read' (Westby 2004: 399). Besides that, it showed that although I introduced similar strategies to all students in the class, students approached the same task using different sets of strategies, that is, 'each individual approaches the text differently and uses different strategies to process it' (Almasi 2003: 103). This finding prompted me to raise students' awareness of the inter-individual differences in their use of reading strategies during the task. Following this in-class decision, I asked students to share first with their partner and then with the entire class the strategies they had used to perform the task. This was in keeping with the literature that suggests that we can 'provide opportunities for students to share the different strategies they use with each other so they can see how other readers approach and accomplish tasks' (Almasi & Hart 2011: 264). Most of the students liked listing and sharing strategies with their peers. In this regard, while one of the students said to me during the lesson that the discussion made her aware of how she and others carried out the task, another student said that the discussion made him realize that he could use different strategies than his peers. This feedback prompted

me to inform students that using strategic processes in reading is similar to using multiple routes to arrive at the same place for a meeting since all readers could arrive at the same place taking different paths (Almasi & Hart 2011). To put it another way, I brought to the students' notice that 'strategies can be used in a variety of ways, depending on one's personal proclivities' (Pressley & Afflerbach 1995: 114). I also brought to the students' notice that 'there is no particular strategy or set of strategies that is 'correct' in any given reading situation' (Almasi 2003: 59). I gave all this information to students since the 'awareness of the processes is half the battle' (Afflerbach & Johnson 1984: 310).

Since it emerged during the lesson that students were using a number of reading strategies to carry out a task, I took another in-class decision to introduce the RC (see Table 3.2, p. 76) to students. I decided to introduce this for two reasons. First, I had learnt through students' diaries that some students forgot to use strategies during reading. For instance, Saba wrote in her diary that:

> There are certain strategies which are new to me like prediction of title, using prior knowledge etc. since they are new, I don't have a command over them and because of lack of time-phase most of the time I forget to use it.
>
> (Extract 5.40, Saba's diary, 12.03.13)

This entry made me realize that Saba had metacognitive awareness of her progress. However, I needed to teach her and other students how to self-direct and monitor comprehension since 'development of strategy use takes much time and practice' (Pressley & Gaskin 2006: 104). Second, students' monitoring ability improves with training and practice (Delclos & Harrington 1991).

The data from my journal shows that, in line with the decision discussed above, I introduced the RC. However, I made three mistakes in administering it. First, I asked students to fill it in after they had read the text. This made the planning section of the checklist appear redundant. Second, I did not discuss the checklist before asking students to fill it in. Consequently, many students asked questions regarding different items on it. Third, I did not model the use of checklist on any text although the literature indicates that 'modeling of regulatory skills such as planning, monitoring, and self-evaluating are especially important' (Schraw 1998: 122). Since I realized the mistakes I had made during my reflection-in-action (Schon 1983), I stopped students in the middle of the activity and discussed the checklist. I learnt that most of the students thought that the RC helped them to think about their reading process, but it was time consuming to fill it in. This was reported by some students in their exit slip as well:

> *The self-monitoring seems difficult because it takes a lot of time to think about our own place where you stand.*
>
> (Extract 5.41, Anonymous exit slip, 08.04.13)

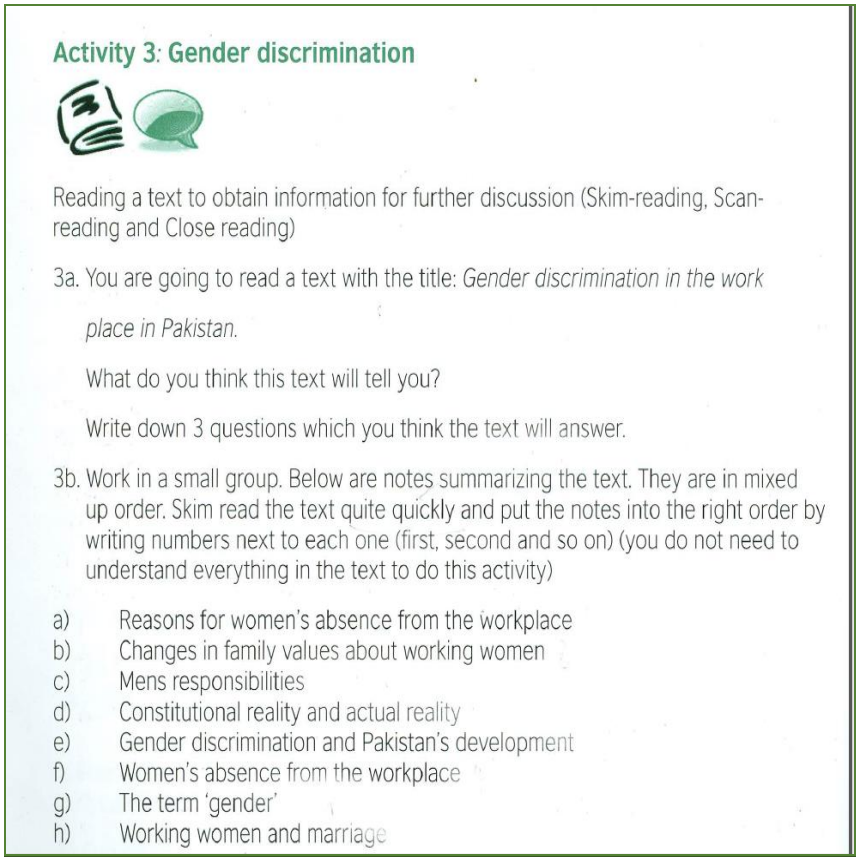
Here, it can be seen that the student who wrote the comment found the RC difficult as he/she thought it required him/her to assess his/her reading process.

To conclude, the lessons on the strategy of identifying the main idea prompted me to reflect on my role during metacognitive reading strategy instruction. While ruminating over it I realized that the process of promotion of metacognition of reading strategies required me to involve students in timely experiences (for instance, introducing the RC) to help them direct the course of their own learning. This meant that to be an effective teacher I had to be well prepared in terms of resources to quickly adjust to students' needs. I also noticed that to teach strategies I had to be

strategic and flexible. Moreover, I realized again that to be an effective teacher of metacognition and reading strategies I had to closely monitor students and see their responses and growth since taking students through the metacognitive processes appeared to be a process in itself. On a different note, I noticed that different students flexibly used different combinations of strategies during the lesson on the text titled 'A Painful Memory?'

5.2.1.3 Skimming and scanning

The next reading strategies I provided metacognitive instruction on were skimming and scanning. I provided practice on these strategies in the classes held on the 19th and 23rd of April 2013. I opened the first class by facilitating a discussion on what the strategies of skimming and scanning are. Next, I asked students to fill in the SEM to facilitate a discussion on the procedural and conditional knowledge associated with these strategies. This was followed by teacher modeling on the strategies. Then, I asked students to individually carry out the activity 3b (see Figure 5.5) of the text titled 'Gender Discrimination in the Work Place in Pakistan'. The activity provided students practice in ordering the main idea by skimming the text. At the end of the activity I facilitated a pair discussion followed by a whole class discussion.



Activity 3: Gender discrimination

Reading a text to obtain information for further discussion (Skim-reading, Scan-reading and Close reading)

3a. You are going to read a text with the title: *Gender discrimination in the work place in Pakistan.*

What do you think this text will tell you?

Write down 3 questions which you think the text will answer.

3b. Work in a small group. Below are notes summarizing the text. They are in mixed up order. Skim read the text quite quickly and put the notes into the right order by writing numbers next to each one (first, second and so on) (you do not need to understand everything in the text to do this activity)

a) Reasons for women's absence from the workplace
b) Changes in family values about working women
c) Mens responsibilities
d) Constitutional reality and actual reality
e) Gender discrimination and Pakistan's development
f) Women's absence from the workplace
g) The term 'gender'
h) Working women and marriage

Figure 5.5 Skimming and identifying the main idea activity

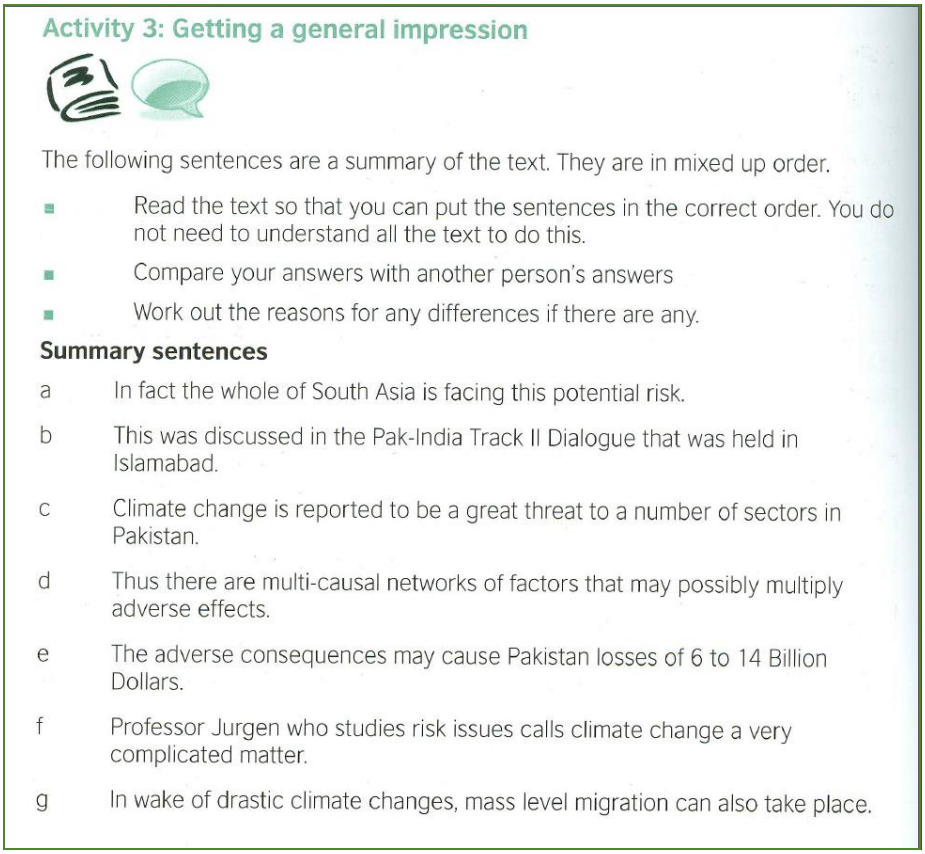
I noticed during the lesson that some students found ordering the main idea by skimming the text challenging. This included the students who had good reading ability. My in-class observation was further validated through entries in learners' diary in which students reported that they found the task difficult. Saba, for instance, reported her experience of task difficulty thus:

> After ordering main idea by skimming the text "Gender discrimination in the work place in Pakistan" I was quite taken aback, since I was unable to match the main ideas with their appropriate paragraphs.
>
> (Extract 5.42, Saba's diary, 23.04.13)

From the above extract, it can be seen that Saba's experience of the task was not-too-pleasant as can be seen from the words 'taken aback' she used to describe her metacognitive knowledge of self and her metacognitive experience of carrying out the

task. It is also evident that her metacognitive experience had a cognitive as well as an affective character as before (see Section 5.1.7).

Saba and some other students' feedback on difficulty in carrying out the task made me provide students further practice on these strategies. Therefore, in the next lesson I facilitated the same activity of ordering the main idea by skimming the text (see Activity 3, Figure 5.6) on another text titled 'Will Climate Change Lead to Conflict or Cooperation?' Since most of the students found the task difficult last time, I asked them to use the RC (see Table 3.2, p. 76) to plan their reading before carrying out the assigned activity.



Activity 3: Getting a general impression

The following sentences are a summary of the text. They are in mixed up order.

- Read the text so that you can put the sentences in the correct order. You do not need to understand all the text to do this.
- Compare your answers with another person's answers
- Work out the reasons for any differences if there are any.

Summary sentences

a In fact the whole of South Asia is facing this potential risk.

b This was discussed in the Pak-India Track II Dialogue that was held in Islamabad.

c Climate change is reported to be a great threat to a number of sectors in Pakistan.

d Thus there are multi-causal networks of factors that may possibly multiply adverse effects.

e The adverse consequences may cause Pakistan losses of 6 to 14 Billion Dollars.

f Professor Jurgen who studies risk issues calls climate change a very complicated matter.

g In wake of drastic climate changes, mass level migration can also take place.

Figure 5.6 Skimming and identifying the main idea activity

Most of the students found the ordering activity easier this time perhaps due to familiarity with the task. Commenting on this, for instance, Furqan wrote:

> I will also say that after the activity of the text "Gender discrimination" I became familiar to what I was supposed to do, although the results I got was were poor at the first time. I did not practice it or any other text at all after that activity. Astonishingly, when we dealt with the activities of the text "Will climate change lead to conflict or cooperation" I amazingly improved very much when I compared it to the first text.
>
> (Extract 5.44, Furqan's diary, 23.04.13)

Here, it can be seen that Furqan expressed his surprise on his experience of carrying out the task better than the first time. His use of words such as 'astonishingly' and 'amazingly' showed once again that his metacognitive experience of carrying out the

task and metacognitive knowledge of self had a cognitive as well as an affective dimension.

Like Furqan, Khadija reported that on the whole she was able to perform the task successfully this time:

> *In this class my answers are mostly right and I am also happy.*
>
> (Extract 5.45, Khadija's exit slip, 23.04.13)

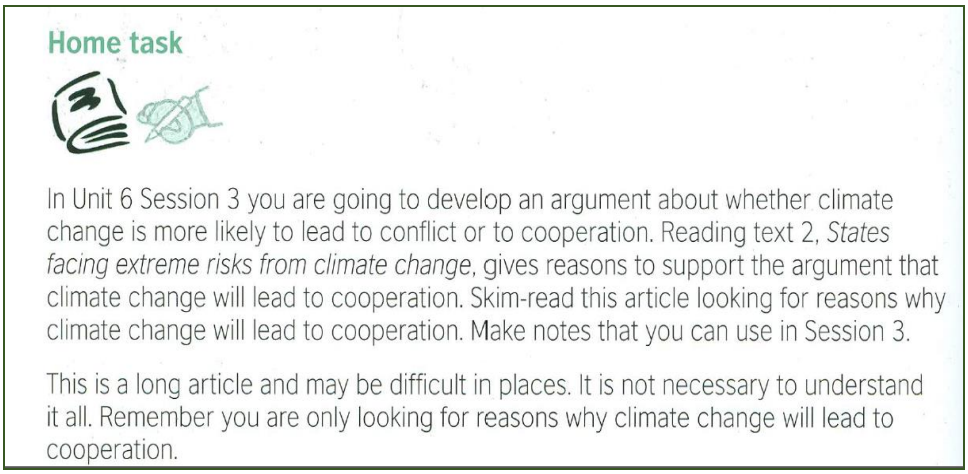
Here, it can be seen that Khadija too conveyed the metacognitive experience of the progress she made towards the goal in cognitive as well as affective manner.

Besides that, some students reported that using the RC to plan, monitor and evaluate their reading during activity 3 helped them in carrying out the task. For instance, Saba reported that using the metacognitive strategies of planning, monitoring and evaluating helped her to regulate the thought processes according to the stages of reading. This 'break up' of 'thoughts and processes', in turn, provided a road map to her for how to proceed with the reading as noticeable below:

> When beginning these activities I noticed a lot of things. Breaking up the task into three stages of planning, monitoring and evaluation actually helps to break up our thoughts and processes specifically into three stages, where we can exclusively implement pre-reading, during-reading and post reading strategies. We get a clear picture of how to proceed. What to do and how to do.
>
> (Extract 5.46, Saba's diary, 23.04.13)

This finding indicated that the RC enabled Saba 'to implement a systematic regulatory sequence' that helped them control their performance, as indicated by the literature (Schraw 1998: 120).

Despite the fact that most of the students began to understand the task better than before, I decided to provide students with further practice in skimming and scanning since some students still seemed to find them difficult. However, since I could not facilitate another lesson on them due to time constraints, I assigned students homework on the text titled 'States Facing Extreme Risks from Climate Change'.


Home task

In Unit 6 Session 3 you are going to develop an argument about whether climate change is more likely to lead to conflict or to cooperation. Reading text 2, *States facing extreme risks from climate change*, gives reasons to support the argument that climate change will lead to cooperation. Skim-read this article looking for reasons why climate change will lead to cooperation. Make notes that you can use in Session 3.

This is a long article and may be difficult in places. It is not necessary to understand it all. Remember you are only looking for reasons why climate change will lead to cooperation.

Figure 5.7 Skimming and scanning activity

The homework required students to skim and scan the text (see Figure 5.7). As part of the homework, I also asked students to use the RC for planning, monitoring and evaluating their reading. In addition, I asked students to fill in the SL (see Figure 5.8) that I adapted from Auerbach and Paxton (1997: 246) for both the strategies to enable them to critically evaluate how the strategies shaped their reading of the assigned text. To help students understand the questions of the SL, I modeled using it for the strategy of identifying the main idea on the text 'A Painful Memory?' that students had already read.

1. Name of strategy:
2. What was the text you used this with?
3. How did you use this strategy?
4. How do you feel about this strategy?
5. Did it seem to help? Why or why not?
6. Describe the effect of using this strategy on your speed and on your comprehension.
7. Would you try it again? If so, would you do it differently? Why or why not?

Figure 5.8 Strategy log (Adapted from Auerbach and Paxton 1997: 246)

The data once again showed that most of the students found the homework manageable as a result of using the RC. Students brought this to my notice during the next lesson. They also reported this in their learners' diary. For instance, Khadija reported that as a result of using the metacognitive strategies of planning, monitoring and evaluating she was able to use both the strategies of skimming and scanning during the task:

> I like skimming but on this text basically I have to do scanning and skimming both. In the beginning I am little bit tensed how can I do these both at a time. But when I use my planning, monitoring and evaluating strategies I easily reached to my destiny.
>
> (Extract 5.47, Khadija's diary, 28.04.13)

Similarly, Ali in response to the question 'what worked' in the evaluation section of the RC (See Table 3.2, p. 76) reported that planning, monitoring and evaluating worked for him in carrying out the task:

> She said you skim it means just check the main purpose on it, and that after that skimming process told me in your learner's diary 'what did you work in this skim-text?' Answer of this question is that we do planning before reading, we do monitoring while reading and we do evaluating after reading.
>
> (Extract 5.48, Ali's diary, 28.04.13)

It also appeared that Furqan realized the importance of planning on using the RC:

> Next time I will focus more on the pre reading planning step and decide everything that I have to do before doing it according to the task length because unplanned reading could really be time consuming if the text is lengthy.
>
> (Extract 5.49, Furqan's diary, 28.04.13)

Here, it can be seen that Furqan decided to focus more on the planning step next time in order to conserve his reading time.

From the previous extract it appeared that the RC had the potential to help students become more strategic and systematic. This finding was in keeping with the literature that indicates that 'explicit prompts in the form of checklists help students to be more strategic and systematic' (Schraw 1998: 121).

I also found that all participating students critically evaluated how the strategies of skimming and scanning shaped their reading of the assigned text. For instance, Saba thought that combining scanning with skimming helped her focus on the topic as is revealed below:

> If I was using only skimming, then it would have taken a bit long time. The combination of scanning aided me to focus my mind on the topic and specific details about cooperation.
>
> (Extract 5.50, Saba's diary, 28.04.13)

On the other hand, Furqan mentioned that though both skimming and scanning improved the 'reading speed' they made comprehension weaker as he did not do detailed reading while employing them:

> Talking about scanning, using this strategy definitely helps improving my speed of reading but it makes comprehension a lot difficult. As this strategy demands not to read all the text and look for the particular thing we are searching for. As far as skimming is concerned it multiplies the speed rate amazingly. Although it weakens the comprehension but still it's quite helpful in getting the general idea of the text.
>
> (Extract 5.51, Furqan's diary, 28.04.13)

The previous extracts indicate that though both Saba and Furqan had positive feelings towards using the strategies of skimming and scanning, Furqan also thought they had a downside to them. What is noteworthy here is that students made these critical evaluations in response to the questions given in the SL (see Figure 5.8, p. 168). It therefore appears that the SL helped students critically evaluate how the strategy shaped their reading of the assigned text.

On reflecting on the lessons I noticed that the instructional steps I took to provide metacognitive reading strategy instruction on skimming and scanning were the same as the ones I took for the strategy of identifying the main idea. Table 5.3 presents the instructional steps I took to provide instruction on identifying the main idea and skimming and scanning during the introductory lessons on both the strategies.

Table 5.3 Instructional steps taken to promote metacognition of the taught strategies

Components of Metacognitive Strategy Instruction		**Strategy Declarative Knowledge (What)**	**Strategy Significance (Why)**	**Strategy Procedural Knowledge (How)**	**Strategy Conditional Knowledge (Where and When)**	**Strategy Evaluation**	**Guided Practice**
Facilitated mainly by means of		Whole Class Discussion	Strategy Evaluation Matrix (SEM)	Teacher Modeling (TM) & Strategy Evaluation Matrix (SEM)	Strategy Evaluation Matrix (SEM)	Strategy Log (SL) & Regulatory Checklist (RC)	Activities
The order in which the components were taught in the lessons	**Obtaining And Giving Information** Main strategy taught: Identifying the Main Idea	A	B	B C (TM)	B	X	D
	Gender Discrimination in the Work Place in Pakistan Main strategy taught: Skimming	A	B	B C (TM)	B	X	D

Table 5.3 shows that the sequence of instructional steps was the same in the lessons although I did not enact a script during the lessons despite having planned the lessons

prior to going to the class. Rather, I adjusted the lessons in response to students' needs on a moment-by-moment basis. I therefore surmise that one of the reasons for such a similarity could lie in the fact that students by now expected a discussion on the declarative, procedural and conditional knowledge associated with using the strategies in a lesson that introduced any new strategy or strategies. Perhaps that's why it was possible to discuss with them the why, when and where to use the strategies introduced before providing them with opportunities to practice using them.

Overall, it appeared from the lessons on the strategies of skimming and scanning that providing students tools such as the RC and the SL not only made them aware of their strategy use, but also helped them regulate their use of strategies during reading. On a different note, I also found during lessons on different strategies that all four participating students' description of their metacognitive experience of carrying out the tasks had both a cognitive and an affective character. As can be seen from extracts in Sections 5.1.7, 5.2.1.1 and 5.2.1.3, it appeared impossible to identify students' metacognitions about strategy use without reference to the emotion that accompanied the thought. This suggests that the metacognitive knowledge of self and the metacognitive experiences related to task performance could be affectively charged. It therefore seems plausible to conclude that metacognition does indeed involve 'motivational dynamics as well as cognitive knowledge' as argued by Paris and Winograd (1990: 25).

5.2.2 Promoting students' metacognition by using research tools as pedagogic tools

During the intervention stage of the study I used two of my research tools, namely the WELT and the learners' diaries, for the pedagogic purpose of promoting

metacognition of reading strategies in students. Specifically, I used the WELT to help students become aware of the strategies they and their peers used during the test. In more detail, in the lesson held on the 19th of March 2013 I returned students the reading test they took during the initial investigation stage of the study and asked them to try to think about the strategies they used during the test. I also encouraged them to provide details of how they used the strategies. This was followed by a pair and a whole class discussion on the strategies students' used to arrive at the right answer. I facilitated this discussion since the literature indicates that the 'teachers can encourage metacognitive behaviours by asking open ended questions that encourage students to share their thought processes' (Almasi & Hart 2011: 264). Also, the literature points out that the language students use to respond to such questions brings awareness to what are typically covert or hidden though processes (Prawat 1989).

As expected, the lesson raised some students' awareness of self as a reader and it made them aware of the strategies they could use to read well as is noticeable from the following extract:

> *Today's class was very informative and self awaring. I learn a lot about myself as a reader, and also about the initiatives which I have to take to become a good reader.*
>
> (Extract 5.52, Anonymous exit slip, 19.03.13)

The data also reveals that some students became aware of the reading strategies other students used in order to read better as illustrated from the following extract:

> *Today I learnt a lot about reading strategies and also from classmates I have learnt what they do while reading.*
>
> (Extract 5.53, Anonymous exit slip, 19.03.13)

These findings indicate that the reading test also functioned as an awareness raising tool for my students.

Besides WELT, I used the learners' diaries as an awareness raising tool for students. That is, I used a learner diary to help students reflect, assess and regulate their reading and use of the strategies during the intervention stage of the study. For this purpose, for instance, I asked students to reflect on their use and regulation of the strategies introduced during the lessons in which I utilized the RC and the SL. Readers may refer to Sections 5.2.1.2 and 5.2.1.3 to read some of the extracts from the diaries that students wrote on these lessons. Besides that, I provided students with opportunities to read other students' diaries so as to become aware of the strategies used by their peers. Not surprisingly, three participating students thought that they learnt about strategies that other students used through reading their diaries. For instance, Khadija reported that she learnt strategies she did not use from reading other students' diaries:

> I read everybody's diary and I found some new points which I don't do. Namra's and Wajeeha's diary are well written and there are also some other like Faizan use different strategies that I don't use. I like this point of Memona's diary that she sets goal. Samia's diary also have good points. I like this point also that they read regularly. They also start predictions before and after reading.
>
> (Extract 5.54, Khadija's diary, 20.03.13)

The above extract reveals that Khadija noticed the inter-individual difference in the use of strategies by her and some other students. Moreover, she learnt that some students 'read regularly'.

On the hand other, it appears that Saba benefitted from reading other students' diaries:

> Namra's dairy was written very exclusively, mentioning each and every detail. She had a lot of reflective thinking and it seemed that she had thought a lot about it. This helped me analyze where I was standing in terms of diary writing.
>
> (Extract 5.55, Saba's diary, 20.03.13)

Here, it can be seen that collaboration with a peer helped Saba analyse her 'standing in terms of diary writing'.

Overall then, these findings indicate that a study using research tools for pedagogic purposes facilitates students learning by helping them to reflect and understand better their and other students' learning process.

5.2.3 Promoting students' metacognition by fostering their interest in reading

In line with the decision I took in the initial investigation stage of the study (see Section 5.1.5) I continued to take measures during the intervention stage of the study to stimulate students' interest in reading. In this regard, I tried to raise students' interest in most of the texts by personalizing them and raising their curiosity about them as suggested by Dorneyi and Csizer (1998). Recall I shared details of the place and my trip to Neelum Valley with students before reading the text titled 'Neelum Valley: A Gem to Treasure' to get students interested in the text, rather than simply demonstrating the strategy of prediction. This induced a high level of students' engagement in the text as can be seen from Extract 5.24. It also appears from the exit slips that the input related to the Valley riveted the students' attention and ignited their interest in the lesson:

> *Today's class was very nice, you got us extra excited after telling us about the trip, it's always good to brainstorm and feed my extra hyperactive imagination.*

(Extract 5.56, Anonymous exit slip, 12.02.13)

As usually todays class was also very interactive and informative and I really enjoyed discussing about Murree.

(Extract 5.57, Anonymous exit slip, 12.02.13)

Students' positive reactions towards the lesson were in keeping with the literature that indicates that 'relevance that enables students to see connections of text to themselves' could arouse students' interest in the text (Guthrie 2011: 186).

In addition, I tried to develop students' interest in reading by making in-class decisions about what to do next on the basis of students' response to the lessons. The literature indicates that 'being responsive to students' interest motivates students' (Guthrie 2011: 193). Taking Section 5.2.1.1 as example, I would remind the reader that during the lesson on the strategy of prediction I did not explain to students why the strategy is important soon after eliciting from them what they think the prediction strategy is. I did this since students appeared interested in continuing the activity they were carrying out and as a teacher I feared that any interruption could negatively impact their level of engagement in the lesson. As noted in Extract 5.24, the decision bore a positive result as students showed involvement in the text throughout the lesson.

Moreover, I provided students with opportunities to collaborate and work directly with one another in pairs or small groups and during whole class discussions since the literature indicates that collaboration promotes student motivation (Pressley & Gaskin 2006). I noticed during the lessons that most of the students took active participation in the pair and group work activities as well as in class discussions. It appears from students' diaries that they liked group and class discussions. For instance, Furqan

thought that it helped students realize that learning is a collaborative act, something they did not learn from 'local educationalists' before. Moreover, he believed it induced 'self-awareness and confidence in students:

> Discussions in groups and pairs genuinely led to a whole different style of learning especially for us. It opened doors to understand learning as a process of collaborating and getting highlighted information from anywhere we can and from others' minds. It is affecting our self-centered and reserved line of attack that we inherited from our local educationalists. I feel the need to induce self-awareness and confidence in students that I think this technique is doing. Comparing it with when our classes started, I see a great deal of change in the students that I believe this approach brought up.
>
> (Extract 5.58, Furqan's diary, 08.04.13)

Along similar lines, Saba thought that group and class discussions promoted healthy interaction between students as they began to share their thinking and problems:

> Group discussions, every time with new partners, class discussions and activities regarding asking others about their opinions and valuing them, actually opened our class fellows to us and we opened up to them. The shyness in asking for help or discussing problems was removed and everyone freely asked and got help.
>
> (Extract 5.59, Saba's diary, 25.05.13)

From the previous extracts it can be seen that Furqan and Saba did not explicitly report that social collaboration promoted their motivation in the lessons on reading. However, since they seem to appreciate working with others it may be that it kindled their desire to read during the lessons. It is well-established in the literature that in a classroom 'the healthy growth of individual motivation depends very much on the quality and level of interpersonal support provided in the social learning environment' (Ushioda 2008: 28).

The lessons on the reading strategies taught stimulated some students' interest in reading and reading strategies. In the feedback students provided on these lessons most of the students considered the lessons to be valuable. For instance, I learnt at the end of my first and third lesson on the strategies of prediction and activating prior knowledge (for details of the lessons see Section 5.2.1.1) that students liked the lessons as they thought that the strategies would help them become a better reader. This is illustrated from the following extracts:

> *This class help me to get a strategies related to reading so, I am planning to use them in my future so that I can be a good reader.*
>
> (Extract 5.60, Anonymous exit slip, 12.02.13)

> *Todays class was so Osum. I learnt a lot from this class and I hope Inshallah u'll continue teaching these strategies which will help us a lot to become a better reader.*
>
> (Extract 5.61, Anonymous exit slip, 26.02.13)

The above extracts suggest that the students began to consider strategies to be useful for their future. This is probably why, while the student who wrote the first comment showed the intention of using them in future, the student who wrote the second comment hoped that I would continue teaching the reading strategies in future lessons as well. If genuine, this attitude of students could have sparked their interest in reading strategically since the literature indicates that seeing value in the task motivates students to become strategic readers (Pressley & Gaskins 2006).

Moreover, some students liked the lessons as they thought that they would be able to transfer the strategies they were learning during the lessons to other subjects as well.

An instance of this can be seen in the following extract that a student wrote at the end of the lesson on the strategy of identifying the main idea (see Section 5.2.1.2):

> *Today's class was as usual interesting. We came to know another reading strategy that I could use in other subjects.*
>
> (Extract 5.62, Anonymous exit slip, 02.04.13)

The same reason was later reported by one of the participating students during the interview as well:

> What I have learnt has motivated me a lot because I could do it in other subjects as well.
>
> (Extract 5.63, Translation from Ali's Interview, 27.05.13)

Overall, the finding that having metacognitive knowledge about reading strategies seems to have fostered some students' interest in reading was reminiscent of the literature that indicates that 'students who have more metacognitive knowledge about reading strategies are more likely to have a positive interest in reading' (Van Kraayenoord & Schneider 1999: 318).

To sum up, it appeared that students began to take interest in reading probably because of the motivation enhancing techniques I utilized during the study as well as because of the reading strategies students got introduced to during the lessons.

5.3 Change in students' awareness and use of the reading strategies

The previous section presented the findings from the lessons I facilitated to promote metacognition of reading strategies in students. The findings in this section reflect the changes that occurred in the participating students' awareness and use of the reading strategies during the intervention stage of the study. These findings are based on my

analysis of the following data: interviews, learners' diaries, think-aloud protocols, teacher's observations and SORS questionnaire.

5.3.1 Increased students' awareness of the reading strategies they already used

During the intervention stage of the study students became aware of the strategies they used prior to the start of the study. Specifically, three participating students who were unaware of the strategies that were already in their repertoire of use became more attuned to them within two months into the intervention stage of the study. For instance, Furqan who already had good reading ability reported that he had been employing several strategies such as rereading and paraphrasing to comprehend the text without knowing that they were reading strategies:

> I already used many strategies before we even learned them in class. And I didn't know about it (aaa) until you told us (…) They were like rereading. They were paraphrasing and pausing and thinking about it, and I don't remember all those but there were quite many of them.
>
> (Extract 5.64, Furqan's interview, 09.04.13)

Similarly, Ali who had low reading ability reported that he had used the strategy of activating prior knowledge in the past as well without recognizing using it:

> I did not know about strategies at all even though I might have been using them (…) It's obvious when one learns a new word one thinks yes I do it but I did not take a note of this. Like we have been using activating prior knowledge.
>
> (Extract 5.65, Ali's interview, 09.04.13)

Besides that, Saba who previously had very good reading ability, realized that she did not have comprehensive knowledge of the strategies of skimming and scanning:

> I am so surprised that I always used to do skimming and scanning and I never knew what's the basic difference

> between them. Like our teachers used to do skim and scan…when people use to ask me I also very boldly used to tell them that this means this and this means that. And we learnt in class that day that oh my god this is the difference between them. Purposes are different why we use them even that purpose is different. For what we use them even that is different. So I was really surprised that what I know is superficial. I don't know in detail.
>
> (Extract 5.66, Saba's Interview, 09.04.13)

From the extract above it is evident that Saba realized that she lacked declarative knowledge of the strategies of skimming and scanning since she was not aware of the difference between them. In addition, she realized that she did not have conditional knowledge of these strategies either since she was not aware that they are employed by readers for different purposes. As stated earlier, declarative knowledge refers to 'knowing what or knowing that' whereas conditional knowledge refers to 'knowing when or why strategies are relevant to the particular comprehension task or problem' (Schmitt 2005: 103). This realization was rather surprising for her since she was under the impression that she had been using these strategies for a long time as reported by her in the initial investigation stage of the study as well (see Section 5.1.2).

In the same light, Saba realized that she was finding the extraction of the main idea difficult due to the lesson held on the 2nd of April 2013 (for details of the lesson see Section 5.2.1.2). She reported it soon after the lesson in her diary thus:

> I am having trouble in identifying the main idea, and I definitely need a lot of practice.
>
> (Extract 5.67, Saba's diary, 03.04.13)

Later, during the interview she recounted that she felt shocked that she did not know how to process the text to identify the main idea, although she had been doing the activity of main idea extraction for a long time:

> The most shocking experience for me was the main idea deduction. I've been doing it since my school since my college, since even O levels they (…) practiced main idea deduction. But the teachers that taught us they didn't tell us that main idea is this if you have difficulty ok fine, try doing this and then try doing that. You skimming, you scanning, jot down the supporting details, or circle the repeated words used because that's what the main idea is. May be there are examples or may be the facts are given to justify. Any sort of this detail was never told to us.
>
> (Extract 5.68, Saba's Interview, 27.05.13)

As the excerpt above shows, Saba did not acquire 'procedural knowledge' (Paris et al. 1983) of the strategy of identifying the main idea from direct instruction in the past. As stated earlier, procedural knowledge includes knowing how to perform and use the reading strategies (Schmitt 2005). Having identified this gap in her knowledge, she explicitly reflected that in the past she did not get introduced to strategies such as identifying the supporting details or flagging the recurrent words by circling them that could have helped her to arrive at the main idea.

Students' heightened awareness of the range of strategies that were (or could be) part of their repertoire indicates that they consciously thought about what they did or could do during reading in the intervention stage of the study. To put it another way, students became metacognitively aware of the strategies they used or could use to enhance or restore comprehension (Grabe 2009).

5.3.2 Change in students' awareness and use of the reading strategies that were practiced during the lessons

The data reveals that all participating students became metacognitively aware of the strategies that were introduced to and practiced during the study. They also used the introduced strategies during the study. I found evidence of this in interviews, learners' diaries, think-aloud protocols, teacher's observations and SORS questionnaire. In this

section I organize this finding under the different data sets that were obtained using different research tools during the study.

5.3.2.1 Interviews and learners' diaries

The data from interviews and learners' diaries indicates that the study developed all three types of metacognitive knowledge in participating students, namely declarative knowledge, procedural knowledge and conditional knowledge. It appears that the participating students also started using the reading strategies taught during reading. In this section, I present and analyse data related to these findings.

A common finding from the interviews and learners' diaries is that all four participating students reported gaining declarative knowledge of the introduced strategies during the intervention stage of the study. For instance, Khadija who had average reading ability reported in her diary soon after the lesson on the strategies of skimming and scanning (see Section 5.2.1.3) that she learnt these strategies:

> I don't know that skimming and scanning are the pre-reading activity before but know I aware from these activities.
>
> (Extract 5.69, Khadija's diary, 20.04.13)

Saba who previously had very good reading ability reported during the interview that she gained declarative knowledge of the strategies of prediction and activating prior knowledge, although she was not aware of them in the initial investigation stage of the study (also see Section 5.1.2):

> I never knew what activating prior knowledge, I never knew about prediction (…) So when I used pre-reading strategies I felt a little bit confident. Because I was aware, ok fine, if I am going to read this, I am going to know about this.

(Extract 5.70, Saba's interview, 09.04.13)

This extract above also indicates that gaining knowledge of the pre-reading strategies helped Saba size the text up before reading, in particular, with respect to what she would get out of the reading. What is more, her mindfulness affected her subsequent behaviour as she felt more confident during reading.

Students' heightened awareness of declarative knowledge about strategies signalled to me that the study has achieved one of its aims. As mentioned before, I planned to help students gain declarative knowledge of strategies since the literature indicates that to be a good reader one must have declarative knowledge about strategies (Schmitt 2005).

Another common finding from interviews and learners' diaries is that all participating students' gained conditional knowledge of using the strategies introduced during the intervention stage of the study. However, the data also shows that the participating students who had very good or good reading ability developed a more comprehensive understanding of 'why' and 'when' the strategies are used as compared to those students who had average or low reading ability. For instance, Furqan who had good reading ability reported in his diary 'why' in his opinion applying the strategy of skimming is helpful. He also reported 'when' and 'how' he intended to apply it:

> I will always do skimming every time before I read something (unless it's a narrative), it gives an overall flavor of the text, clear the mind and gives us an idea that what is in the text so that we could expect more. Skimming also helps putting interest in the text. It saves time off course. I will now skim text using the strategy of reading the first and the last paragraph and first line of each paragraph because that works for me quite efficiently.

(Extract 5.71, Furqan's diary, 28.04.13)

Similarly, Saba, who had very good reading ability, realized during the study that prior knowledge is activated both before and while reading the text (the 'when'). She also noticed that readers activate their prior knowledge for different reasons (the 'why') as illustrated from the extract below:

> I was un-aware that the use of prior knowledge plays a major role in understanding the writer, the context and in analyzing whether a text is true or not. I also realized that to deduce meanings of paragraphs, we also use our prior knowledge in terms of analyzing what is happening around us, or what we know has happened or occurred. We also use it while reading, not only before reading. I was not aware that when underlining facts and figures, I was actually putting by background or prior knowledge to use as before underlining any organization, place or a name, I was aware or had knowledge about it, that's how I came to know about the name, place or organization.

(Extract 5.72, Saba's diary, 18.03.13)

On the contrary, Ali, who had low reading ability, did not seem to have a conscious awareness of the fact that the strategy of activating prior knowledge is used both before and while reading, although during the think-aloud protocol he had employed the strategy of activating prior knowledge during reading as well (see Section 5.3.2.2). Ali's lack of conditional knowledge became evident when he reported at the end of the intervention stage of the study that he mostly realized after starting to read that he had not activated his prior knowledge:

> Ali: I have used the strategy of activate prior knowledge. But mostly after starting to read I remember that I have not activated my prior knowledge.
>
> Researcher: So what do you do?

> Ali: Rather than reading from the beginning again I decide that I would inshallah remember using it the next time if I would read the text again.
>
> (Extract 5.73, Translation from Ali's interview, 27.05.13)

The foregoing finding that Saba and Furqan with very good or good reading ability better gained conditional knowledge of the strategies introduced had implications for the second cycle of the study. It suggested that I should spend more time discussing the 'when' of the strategy use during the second cycle so that students of all abilities could gain conditional knowledge of the strategies equally well.

The data shows that all four participating students not only developed metacognitive knowledge of the reading strategies introduced, but also became aware of the knowledge they gained during the study. The data reveals that Ali reported by the middle of the intervention stage of the study that as compared to before he had developed metacognitive knowledge of the reading strategies:

> I was not aware of strategies at all (…) Now by the grace of Allah I know where they are being used, where to use them, why to use them.
>
> (Extract 5.74, Translation from Ali's interview, 09.04.13)

Likewise, Furqan reported at the end of the intervention that his metacognitive knowledge of the strategies had built up during the course. However, he thought he had not practiced using the strategies much:

> I haven't practice it (reading strategies) very much as I could but knowledge base (…) my knowledge base have been very improved. So I can practice it any time and it can help me with my overall course or any subject.
>
> (Extract 5.75, Furqan's Interview, 27.05.13)

Overall, the previous extracts reflect that students began to develop metacognitive knowledge of the two components identified by the literature, namely, knowledge about cognition and awareness of one's own cognition (Harris et al. 2010).

Related to students' awareness of the reading strategies is the finding that students started using the strategies they became aware of on the texts they read during the Compulsory English Course. However, some students used all strategies effectively during reading as compared to others. For instance, Saba who had very good reading ability employed strategies well during reading. The following extract illustrates her effective use of the pre-reading strategies while reading the text 'Will Climate Change Lead to Conflict or Cooperation?':

> I used my prior knowledge and prediction that if climate change is talked upon, usually global warming will be focused on as previously we were asked to evaluate changes in weather if any and changes are because of global warming. Secondly, if conflicts is mentioned then maybe lack of resources and fight over resources is discussed in the text as I know that it is proposed that the third world war is supposed to break out on scarcity of water. Thirdly if cooperation is discussed then it must be regarding achieving sustainability. I want to find out what are the risks of conflict and advantages of cooperation so that I can frame my mind.
>
> (Extract 5.76, Saba's diary, 24.04.13)

The extract above reveals that Saba explicitly related the text she was to read with her prior knowledge on the topic. On the basis of this, she generated a prediction that the text might discuss the issues of 'global warming', 'lack of resources and fight over resources' and 'sustainability'. She also appeared aware of her purpose of reading as she reported what she wanted to get out of the reading. Evidence from this and Extract 5.70 show that Saba, like the other good readers, did not simply 'dive into a text'

(Pressley & Afflerbach 1995: 32). Rather, she predicted what the text would be about and had a 'goal in processing the text' (ibid.).

Like Saba, Furqan used all the strategies taught well during his reading. An instance of his effective use of the pre-reading strategies on the text 'States Facing Extreme Risks from Climate Change' is evident from the following extract:

> I scanned for the evidences that I could base as the reason to support the argument in the text activity that climate change could lead to cooperation between states. For this I scanned for the keywords that could emphasize the main idea of the sentences. I needed to skim all the text with a quick glance to be familiar with what I have to scan and to get the main idea.
>
> (Extract 5.77, Furqan's diary, 28.04.13)

From the previous extract it appears that Furqan effectively used the strategies of skimming and scanning to come to terms with text. It also seems that Furqan's awareness of the goal for reading ('find reasons to support the argument that climate change will lead to cooperation', see Figure 5.7, p. 167) directed his processing of the text. That is, he went through the text quickly to look for what might be important parts, relative to the reading goal. This is in keeping with the literature that indicates that in good readers 'awareness of reading goals directs the initial processing of text: that is how overviewing and skimming are carried out' (Pressley & Afflerbach 1995: 33).

On the contrary, students who had average or poor reading ability, namely Khadija and Ali, did not use the strategy of scanning well on the texts. An example of the inappropriate usage of the strategy of scanning on the text 'Pakistan's Education Emergency' by Khadija who had average reading ability can be seen in the following extract:

> The name of the strategy is scanning. The text is Pakistan's Education Emergency and I used scanning with it to understand the text and to find out the reasons of the following claims which are written on Activity 3. I used this strategy by rereading, pausing and activate prior knowledge. Like during reading I paused at many sentences to understand more clearly.
>
> (Extract 5.78, Khadija's diary, 01.05.13)

This excerpt illustrates that Khadija did not have complete procedural knowledge (the 'how') of the strategy of scanning as she paused during scanning to understand the text more fully. However, her use of other strategies, namely 'activating prior knowledge' and 'rereading', indicate that she did make an appropriate selection of some other strategies during scanning.

The finding that students with average or poor reading ability applied one of the strategies introduced ineffectively during reading suggested that I should spend more time in providing procedural knowledge of the strategies to students during the next cycle. It was important to do so since the literature indicates that 'it is not the *presence* or *absence* of strategy that leads to effective learning; rather it is *how* that strategy is used (or not used) to accomplish tasks and learner goals' (Rubin 2008: 11-12, emphasis in original).

5.3.2.2 Think aloud protocols

During the study all four participating students who reported increased awareness and use of reading strategies in their diaries and interviews also demonstrated a change in their awareness and use of strategies during TAPs. As mentioned in Section 4.2.3, I asked students to carry out a TAP on the text from the prescribed textbook titled 'Science and Society'. Students carried out TAP after getting introduced to the strategies of prediction, activating prior knowledge and identifying the main ideas (for

details of the lessons see Sections 5.2.1.1 and 5.2.1.2). The data from think aloud reveals that all four participating students made predictions during the protocol, although none of them reported using the strategy of prediction during the initial investigation stage of the study (see Section 5.1.2). In more detail, after reading the title of the text Furqan predicted that the text would discuss the technologies and machineries that were developed as a result of science. (As stated before, text in bold reflects what the student read aloud. Text in italics reflects the participant's spoken thoughts):

> **Science and society**. I think that this text would be about science and our society related to all the technologies, and all the machineries and all the luxuries that we have in our home like everything washing machine and dishwasher. And all the luxurious of our life related to science that's helping our society.
>
> (Extract 5.79, Furqan's TAP, 09.04.13)

Similarly, Khadija predicted that the text would discuss the technologies which were developed with the help of science. However, unlike Furqan she did not mention if these technologies had positively or negatively affected our life as can be seen from the following extract:

> **Science and society**. Basically I think science and society this topic is related to science (…) In this (…) what are the things (…) and technologies which are developed by the help of science. I think these things are included in this topic.
>
> (Extract 5.80, Khadija's TAP, 09.04.13)

Besides that, the data reveals that all four students activated their prior knowledge during the TAP. However, it appears that they did so for different purposes. All four participating students activated their prior knowledge during reading when they

related what they read with their personal experience. For instance, Ali used the prior knowledge he had to elaborate and give an example related to the idea presented by the author:

> **Through active scientific research there have been numerous advance in technologies that help to make our life easier (**…) So many technologies that have come for us has made our life easy. People who used to wash clothes by hand are using washing machine to do so. So this is the main example. Very easily washed the clothes.
>
> (Extract 5.81, Translation from Ali's TAP, 09.04.13)

On the other hand, three of the participating students, namely Saba, Furqan and Ali activated the prior knowledge they had on the ideas discussed in the text to agree with the author. The following example from Saba's TAP typifies this use of the strategy of activating prior knowledge made by these students:

> **Development of satellite communications has enabled individuals to speak to their loved ones around the world. Just think how much more can be achieved.** Yes I know this satellite communications because we have SKYPE nowadays so yes it is right.
>
> (Extract 5.82, Saba's TAP, 09.04.13)

Conversely, Saba, Furqan and Ali also brought their prior knowledge into action when they disagreed with the author. The following extract from Furqan illustrates a typical use of the strategy of activating prior knowledge for this purpose:

> **With an appreciation of science and technology advances communities can lead a healthier lives because there will be more effective use of resources, less wastage of live is made generally easier for more enjoyment for the population within.** More effective use of resources, I do not (…) agree with this, because as the science and

> technology is progressing we are uses and utilizing more resources. And like we studied in environmental science that all the earth's resources going to (…) going to finish very soon because of the (aaa) large (…) use of that on large scale. So I think (…) in this way it is a drawback of science and technology. I don't think that it should be here (…) effective use of resources should be here.
>
> (Extract 5.83, Furqan's TAP, 09.04.13)

The use of the strategies of prediction and activating prior knowledge during the TAP indicate a concrete change in students' procedural knowledge of these strategy within two months of the start of the study since students neither reported using these strategy in the initial investigation stage of the study (see Section 5.1.2) nor made predictions or activated their prior knowledge on the text 'Neelum Valley: A Gem to Treasure' (see Section 5.2.1.1). The use of the strategies of prediction and activating prior knowledge also indicated that Khadija and Ali started using top-down strategies of reading, something they did not do in the initial investigation stage of the study (see Section 5.1.2). Moreover, it indicated that they had started reading like strategic readers since the literature indicates that strategic readers activate their general world knowledge and textual content prior to and while reading (Pearson & Fielding 1991).

The data from the TAP also reveals that two of the participating students, Saba and Khadija respectively, identified the main idea of the text during the TAP. Specifically, I noticed that Saba identified the main idea of the first paragraph when she made a connection between what she had read in the first paragraph and what she read later in the text as can be seen in the following extract:

> **Will be protected from diseases that would previously have caused sickness and disability, Thus adding pressure and reducing productivity on communities (**…) Ok so it means that in respect to society, science plays a major role that it is

> basically helping society to live a safe and better life. So that's what is described in the paragraph no one that safe and better life is what basically impact of science. So they give us a detail that how to for a better and safe life science has put an initiative.
>
> (Extract 5.84, Saba's TAP, 09.04.13)

In contrast, Khadija identified the main idea of almost all the paragraphs during the think aloud. An instance of her use of the strategy of identifying the main idea is given below:

> **Through active scientific research there have been numerous advances and technologies that help to make our lifes easier. Development of satellite communications has enabled individuals to speak to their loved ones around the world. Just think how much more can be achieved with the improvement Contact between business partners, doctors, engineers and (**…) Basically the main idea which I has collected from this paragraph is the importance and the advantages of science that play important role in the developments of technologies.
>
> (Extract 5.85, Khadija's TAP, 09.04.13)

The finding that in addition to using the strategies of prediction and activating prior knowledge, Khadija started using the strategy of identifying the main idea two months into the intervention stage of the study indicates a significant change in her procedural knowledge and use of these top-down strategies since in the initial investigation stage of the study she only used bottom-up strategies during reading (see Section 5.1.2). On a different note, it also indicated that probably the lessons facilitated in the intervention stage were successful since the literature indicates that the strategy instruction is effective 'when it produces students who not only have learned how to learn, but who also use what they have learned' (Winograd & Hare 1988: 136).

5.3.2.3 Teacher observation

I found during the lessons I facilitated on the strategies of identifying the main idea and skimming that the students who reported increased awareness and use of the reading strategies also demonstrated this change in the task they performed in the classroom. For instance, I observed that students used various strategies to carry out the task of main idea extraction on the text ‘A Painful Memory?’. Readers may refer to Section 5.2.1.2 for details of the strategies used by the students during this lesson.

5.3.2.4 Questionnaire: Survey of Reading Strategies (SORS)

I found further evidence of students’ awareness and use of the strategies of prediction, activating prior knowledge and skimming through a comparison of the SORS questionnaire that students filled in during the initial investigation stage and on the last day of the intervention stage of the study. Specifically, as shown in Table 5.4 below more students of the class started using the strategies of prediction, activating prior knowledge and skimming by the end of the intervention stage of the study.

Table 5.4 Comparison of the number of students in Cycle 1 who used the strategies before the start of the study and at the end of the intervention (n=30)

Strategies	No of students									
	Never or almost never		Occasionally		Sometimes		Usually		Always or Almost always	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
I think about what I know to help me understand what I read (Activating prior knowledge)	4	2	5	3	10	8	6	7	5	10
I take an overall view of the text to see what it is about before reading it (Skimming)	6	0	9	6	4	6	5	8	6	10
I try to guess what the content of the text is about when I read (Prediction)	3	1	7	4	6	8	8	14	6	3

As Table 5.4 shows, the number of students who reported that they 'always or almost always' used the strategies of activating prior knowledge and skimming almost doubled at the end of the intervention stage of the study. In comparison, the number of students who 'always or almost always' used the strategy of prediction reduced to half. However, the reduction in the reported use of the strategy of prediction perhaps did not imply that some students stopped using it. What it probably meant is that, compared to before, the students filled in the questionnaire more carefully after becoming aware of what the item means. This is probably a major reason why a large number of students reported that they 'usually' used the strategy of prediction by the

end of the intervention stage. The data indicates that students' enhanced use of the strategies introduced by the end of the intervention stage is also evident from the fact that while the number of students who 'never or almost never' used the strategy of skimming from six decreased to zero out of 30, it decreased from 3 to 1 in the case of the strategy of prediction.

5.4 Students' regulation of reading

The previous section presented the findings related to changes in students' awareness and use of the reading strategies during the lessons. This section presents findings related to students' regulation of reading during the intervention stage of the study. In this section I therefore discuss the three overarching types of activities that students appeared to engage in during the study to regulate their reading; these included planning, monitoring and evaluating activities. Besides that, I discuss the strategies students used to plan, monitor and evaluate their reading.

5.4.1 Planning

During the intervention stage of the study I found that a great deal of the participating students' activity was in the service of planning upcoming reading. This is evident from the fact that most of the time they consciously selected and employed the strategies that helped them plan their reading before reading a text. For instance, they employed the strategies of prediction, activating prior knowledge, skimming and/or scanning before reading different texts (see Sections 5.3.2.1 and 5.3.2.2). In addition, the participating students planned their reading with respect to their goals using the RC. For instance, Furqan planned, a priori, how to approach the task that required finding the reasons why climate change will lead to cooperation (for details of the task

see Section 5.2.1.3 and Figure 5.7, p. 167) before reading the text 'States Facing Extreme Risks from Climate Change' as reported by him in his diary thus:

> Before starting I changed my mind two times about what and how I should carry out the task conveniently, it took a little time to decide but it was extremely effective and in fact saved me more time, I would have taken more time if I started the task without planning. I simply decided to start skimming the text fast without understanding. I completed the task quite rapidly although it confused me at some places for the first time but I marked many of the evidences the very first time. I decided to read the points of confusion the second time.
>
> (Extract 5.86, Furqan's diary, 28.04.13)

As is noticeable from the above extract, Furqan mindfully engaged in the process of planning before attempting to carry out the assigned task. He appeared quite successful in achieving his goal perhaps because he invested time ('changed my mind two times') in planning 'how' to perform the task. It seems that planning also helped Furqan monitor and evaluate his reading with respect to what he wanted to get out of the reading in question. This appears to in turn have affected his future plan relative to the reading goal, as he decided to 'read the points of confusion the second time'. Furqan's behaviour was is in keeping with the literature that indicates that good readers use their awareness of the purpose for reading to guide, monitor, and evaluate their progress (Blanton et al. 1990, Garner & Reis 1981).

Like Furqan, Khadija planned her reading before reading the same text as is illustrated by the following extract:

> The nature of task is to skim. A goal is to skimming the text and then collect the reasons why climate lead to cooperation. I think I need the dates, places, and evidences to get the information and I will use

> predicting, rereading, pausing and making of main idea strategies.
>
> (Extract 5.87, Khadija's diary, 28.04.13)

It can be seen from the above extract that before reading the text 'States Facing Extreme Risks from Climate Change' Khadija planned how to approach the reading. She also mindfully used her knowledge of the goal of reading to select strategies such as predicting and rereading that could help achieve her aim. However, unlike Furqan who decided to 'read the points of confusion the second time', Khadija planned rereading the text from the start as she selected the strategy of rereading during her planning.

I also found that all participating students not only planned their reading but also regarded planning to be essential for reading. For instance, Furqan considered planning how to approach different texts depending on the task demand to be the 'main thing' for reading:

> The main thing is to judge quickly before starting that what we have to do for every different activity in different ways and which activity require which kind of reading. The planning step before reading was an aid to learn this strategy.
>
> (Extract 5.88, Furqan's diary, 23.04.13)

Similarly, Saba who started planning how to approach the text keeping in view the task demand as discussed in Section 5.3.2.1, stressed the importance of planning at the end of intervention stage of the study thus:

> There was one thing that I learnt from this overall experience was that, it's not always better to jump in the pool but is better to prepare yourself and then jump in the pool.
>
> (Extract 5.89, Saba's Interview, 27.05.13)

Here, using a metaphor Saba reflected that it is important to prepare well before starting to read a text.

5.4.2 Monitoring

There is a great deal of evidence across the various data sets that the participating students regulated their reading in part by monitoring activities. Students' monitoring of comprehension is most evident from the metacognitive experiences they had during the study (for discussion on 'metacognitive experiences' see Section 3.2.4.2). In the first place, data indicates that the participating students used the strategy of rereading when they detected difficulties in comprehension (see Sections 5.2.1.2, 5.3.2.1, and 5.4.1). This was in keeping with the literature that indicates that metacognitive experiences can occur when cognition fails or when an individual realizes that he/she is having difficulty in carrying out a task (Flavell 1981; Garner 1987).

Besides that, the students reported having metacognitive experiences of various other kinds. For instance, students became aware of the strategies they used prior to the start of the study (see Section 5.3.1). In addition, students consciously selected a goal for reading and monitored their use of strategies (see Section 5.3.2.1). These students' experiences that facilitated their monitoring of comprehension were in line with the literature that states that metacognitive experiences are about 'cognitive goals, cognitive actions, and/or metacognitive knowledge' (Pressley et al. 1985: 126).

All participating students not only had metacognitive experiences during reading, they also consciously monitored the comprehension they engaged in during the study. This seems to be the result of using the RC (see Table 3.2, p.76) that required students to monitor if they had a clear understanding of what they were doing and also to evaluate while monitoring if the task made sense and if they were reaching their goals or not

during reading. An instance of the use of checklist by Khadija is evident from the following extract:

> I have a clear understanding what I am doing yes because the paragraphs easily match with the heading which I selected for it, and I think the task make a sense because here we have to keep our mind active so then we get the correct main idea and make mind active is also a strategy which good readers do. And I absolutely reaching to my goal because whatever I read in the paragraphs they match with my headings. I don't think so that I need to make any changes because it is a kind of narrative text if it is a informative text so then I will make changes.
>
> (Extract 5.90, Khadija's diary, 09.04.13)

The above extract reveals that while reading the text 'A Painful Memory?' Khadija monitored her comprehension and thought it was progressing well since she was able to match the headings with the right paragraphs (for details of the task see Section 5.2.1.2 and Figure 5.4, p. 158). On the basis of a close assessment of her reading, she decided to continue processing the text the same way she had up to that point since she thought this is what she needed to do while reading a 'narrative text'. The fact that Khadija decided to read the text in the same manner because it was a narrative and not an 'informative text' also indicates that like other strategic readers she consciously made decisions as to where, when, how, and why she should apply strategic behaviours and actions' (Almasi & Hart 2011). In addition, the above extract indicates that Khadija was aware of her thinking and performance. This was probably because she was consciously monitoring her reading. In this regard the literature states that 'self-monitoring can serve as a mechanism for helping children to become aware of their thinking and their performance while engaged in a reading task' (Joseph 2005: 203).

Like Khadija, Furqan also monitored his comprehension during reading the text 'Will Climate Change Lead to Conflict or Cooperation?' as illustrated from the extract below:

> While monitoring my work and understanding during the task I had to stop in between and think about those questions in the handout, and some other questions of my own like how much I have already gotten in terms of my goal and if not enough then what is wrong with what I'm doing, what lacks and what needs to be changed and revised. Yes I had a clear understanding of what I'm doing but a little confusion with how I am going to do it or doing. The task certainly made sense, as a part of learning process it wasn't only to learn how to order the given summary sentences; it was to discover the way to learn how to understand the text. While monitoring at some places I felt I'm not reaching my goals and I tried to do the task differently, adjusted my techniques and at times altered them just to keep myself in track with the time and understanding.
>
> (Extract 5.91, Furqan's diary, 23.04.13)

The above extract shows that Furqan actively monitored his comprehension in the service of finding meaning in text by using the checklist. He appears engaged in his learning, such as is evident in the questions he added to the checklist, for instance, 'how much I have already gotten in terms of my goal'. He also seems to be aware of the strategic processes he carried out 'to order the given summary sentences' and the changes he brought to the techniques used to reach his goals within the given time. From the above extract it also appears that Furqan's monitoring was indeed 'focused on making processing decisions' and was 'future oriented – what to do next' (Griffith & Ruan 2005: 16) as can be seen from the fact that he reported that 'I tried to do the task differently, adjusted my techniques and at times altered them.' In brief, Furqan's strategic actions matched those of good strategy users 'who uses *sets* of strategies,

coordinates those strategies, and *shifts* strategies when appropriate' (Duffy 1993: 232).

5.4.3 Evaluation

During the intervention stage of the study all four participating students started to evaluate the use of the reading strategies they employed. For instance, students critically evaluated how the strategies of skimming and scanning shaped their reading of the assigned text (for details see Section 5.2.1.3).

Besides that, three out of the four participating students during reading evaluated the text content by instantiating their prior knowledge. Two of these students made evaluations during think aloud (for details see Section 5.3.2.2) while one after the think aloud concluded. Below is a sample from Saba who, after having read the text, felt that it was not exhaustive as it did not cover all sides of the topic 'Science and Society':

> They are only talking about science and benefits. There was not a single point that okay now TVs are there and children are more (...) more or less (...) more are away from their studies (...) They never, they didn't discuss that (...) Degradation of plastic is causing a lot of things so it's (...) basically this text is a positive text, the one we can call a one sided text that's just promoting us the advancement of science. It's not telling us the disadvantage, it's not telling us any bad thing about science, it's just telling that science is very essential in terms of living a safer and healthier and better life. So the topic is I can say it should have been science and a better society not just science and society.
>
> (Extract 5.92, Saba's TAP, 09.04.13)

This extract reveals that Saba reflected that the text only highlighted that 'science is very essential in terms of living a safer and healthier and better life'. However, it did

not discuss the various disadvantages of science. Consequently, she suggested another title for the text.

Saba's critical reaction to the text as a whole showed that she began to regulate her comprehension since prior to the start of the study she did not react to the text content. That is, she used to uncritically accept the text content as she believed that the writers were infallible as illustrated by the extract below:

> We never ever critically analyzed any text in our lives. If we didn't get an answer we used to think it's our fault we didn't we never thought even the writer can make a mistake. Everything that used to happen and we used to blame it on ourselves that we are incapable of doing it, we don't know how to do it, but we never knew, no writers, even they follow a guideline.
>
> (Extract 5.93, Saba's Interview, 27.05.13)

As the above extract indicates, Saba attributed the challenges she encountered during reading to her lack of skill prior to the start of the study. However, by the end of the intervention stage she realized that writers could be judged on their writing.

In addition, the participating students evaluated their cognitive processes during reading as well. For some students it appears that the evaluation process did not end with the text they were reading. In fact, they carried over to the next reading what they learnt in the previous text that had a task of similar nature. For instance, while reading the texts 'Gender Discrimination in the Work Place in Pakistan' that required students to skim read the text to order the given notes (see Section 5.2.1.3, Figures 5.5), Furqan read the whole text meticulously and did not find this useful. He therefore, while carrying out the task of similar nature (see Section 5.2.1.3, Figures 5.6) in the text 'Will Climate Change Lead to Conflict or Cooperation?' changed his strategy. He reports this in his diary:

> I reached many of my goals in the end (…) For this activity reading the whole text and understand it didn't work for me (in the previous text) as it required a very superficial look at the text to absorb the main idea and keep an eye on what is where. Using the skimming strategies worked very constructively where I read the first and last paragraph of the text and the first line of each paragraph. The main thing is to judge quickly before starting that what we have to do for every different activity in different ways and which activity require which kind of reading. The planning step before reading was an aid to learn this strategy.
>
> (Extract 5.94, Furqan's interview, 23.04.13)

The previous extract indicates that Furqan monitored and evaluated the strategies he used to carry out the similar tasks in two different texts namely 'Gender Discrimination in the Work Place in Pakistan' and 'Will Climate Change Lead to Conflict or Cooperation?' It appears that he evaluated the reading strategy he used in the previous text with the one he used in the current text to comprehend it. On the basis of his across-text comparison strategies on a similar task he realized that it was planning that he did before reading helped him achieve his goal.

Likewise, Ali evaluated his processing of the text 'Pakistan's Education Emergency' as illustrated from the following extract:

> The text was difficult for me b/c it have words which I don't understand and I also don't know how to scan b/c I don't use it before or in my school life but when you told me about this strategy I am aware of it but require some more practice and concentration. The text was difficult for me so I need much more time to scan and find out given information.
>
> (Extract 5.95, Ali's diary, 29.04.13)

This extract above indicates Ali's awareness of the difficulties he faced while reading. In addition, it indicates that Ali was also aware of the reason behind his current

difficulty since he reported that ‘I need much more time to scan and find out given information’ because of the difficult words he encountered during reading.

In summary, it appears that students began to regulate their use of reading and reading strategies during the intervention stage of the study. This seems to be so since the literature indicates that students ‘who can plan their reading for different purposes, who can monitor their understanding as they read, and who can repair and regulate their comprehension are demonstrating understanding and control over their cognitive processing of text’ (Paris & Flukes 2005: 122).

5.5 Reflections on the first cycle

On reflecting on the experience of the first cycle as a whole I realized that I might not have been able to promote students’ awareness, use and regulation of reading strategies during the study had I not tried to enhance their interest in the lessons at the same time. In fact, what I noticed during the lessons was that my attempts to enhance students’ awareness and regulation of reading strategies were interwoven with my attempts to keep students interested in the lesson (see for example Extract 5.24). In addition, I learnt that I was able to raise students’ awareness of reading strategies and motivated them to regulate their reading during the intervention stage probably because I adjusted the lessons on the basis of students’ needs, reactions and views during the intervention stage. In other words, I adopted an inclusive pedagogy during the lessons that kept students at the center of the learning process. It seems fitting to mention here that choosing action research as a methodological framework enabled me to work in a reflexive way to the development of teaching practices that helped me meet the needs of my students. Putting it another way, I was able to evaluate and change my teaching practices during the cycle since the very nature of action research

is that it functions as an ongoing process of change and improvement (Burns 2010a). In this cycle I also learnt that providing explicit instructions of strategies as well as opportunities for student dialogue and verbalization about strategy use helped in promoting metacognition of reading strategies in the students concerned.

Chapter Six

Cycle 2: August 2013 – November 2013

Cycle 1 (Chapter 5) revealed that student collaboration and students' interest in reading are far more crucial elements in metacognitive reading strategy instruction than I had originally envisaged. This realization encouraged me to exploit these elements in different ways in Cycle 2. Therefore, unlike Cycle 1, in Cycle 2 I informed students from the start that I would help them develop their reading skills with the help of others as part of the pedagogical process. Moreover, I kept another aspect of motivation, namely students' sense of efficacy, in view from the start of the cycle.

Chapter 6 offers a description and analysis of AR Cycle 2. Just as Cycle 1, it spanned over four months. It started in August 2013 when I got access to another group of first year Bachelor of Arts (BA) students from a department from the Faculty of Science. In this group I had 26 students altogether, 5 male and 21 female. They ranged in age from 19-20. Like Cycle 1, I invited the entire group to take part in the study but selected four participating students, namely Marium, Rida, Nida and Sarah for the in depth data collection. Just as in Cycle 1, I selected these students since they represented different proficiency levels in reading as shown by the results of WELT: Marium scored B grade, Rida scored C grade, Nida scored D grade and Sarah scored E grade.

6.1 Background information

I facilitated seven lessons at the start of Cycle 2 to collect background information on students' awareness, use and regulation of reading strategies as well as their reading

ability. The lessons were each 60 minutes long. For this purpose as before, I administered a reading test and a SORS questionnaire to all students. However, I conducted interviews and TAPs only with the participating students. Moreover, I collected anonymous feedback from all students on almost each lesson by means of an exit slip. Furthermore, I used my journal to reflect on the lessons and the issues that were emerging from the data. In the following section I shall present the issues that emerged during the lessons. I shall also discuss the similarities and/or differences I noticed between students in Cycle 1 and Cycle 2 during these lessons.

6.1.1 Students' conception of reading

Like Cycle 1, the interviews established that three of my participating students held a 'word-centered' (Devine 1984) theoretical orientation of reading. For instance, Rida believed that reading each word of the text is important to understand it. This is illustrated from the following exchange with her that shows that she was focused on attending the exact details of the print as a way of arriving at meaning:

> Researcher: When you read a text, do you read each and every word of it or do you select some of the words that you read?
>
> Rida: No miss, each and every word.
>
> (Lines deleted)
>
> Researcher: Do you think paying attention to each and every word makes reading easier?
>
> Rida: Yes Miss. This help you understand the moral of the paragraph.
>
> (Extract 6.1, Translation from Rida's interview, 06.09.13)

Like Rida, Sarah was of the opinion that reading each word in a text is important to comprehend it:

Researcher: Do you think it is better to pay attention to each word while reading or get an overall sense of the text?

Sarah: Mam on each word.

(Extract 6.2, Translation from Sarah's Interview, 06.09.13)

The finding that most of my participating students expressed a word-centered theoretical orientation of reading implied that perhaps their teachers, just as the teachers of students in Cycle 1, encouraged them to read all the words given in the text. Looking closely at the data I found that, during their interview, all four participating students had indeed reported that they experienced reading every word during their English lessons in school. This was, for instance, reported by Rida thus:

Researcher: How did teachers teach reading in school?

Rida: Miss she used to ask student to stand one by one and read.

(Extract 6.3, Translation from Rida's interview, 06.09.13)

The above extract reveals that just like Saba's and Furqan's teachers in Cycle 1 (see Section 5.1.1), Rida's teacher employed the technique of reading aloud during the lessons.

Likewise, it is evident from Sarah's diary entry below that her teachers also used the technique of reading aloud for teaching reading during the lessons:

In school the way of English teaching was teacher read first then he/she called the names of students to read. Then if the student could not speak loudly then she/he called the name of another student who could speak loudly.

(Extract 6.4, Sarah's diary, 04.10.13)

Here, it can be seen that the only difference in the teaching style of Rida's and Sarah's teachers was that Sarah's teacher read the text aloud before asking students to do so.

6.1.2 Students' awareness of the reading strategies they use while reading

Just as in Cycle 1, interview established that most of my participating students reported that they did not use pre-reading strategies before reading an academic text. In more detail, three of my participating students generally did not do anything before academic reading as is evident from the following interview extracts:

> Researcher: Do you do anything before you read any text related to your study?
>
> Rida: No Miss.
>
> (Extract 6.5, Rida's interview, 06.09.13)

> Researcher: If I would give you a text for reading in the class, would you do anything before reading it?
>
> Nida: No Mam.
>
> (Extract 6.6, Nida's interview, 06.09.13)

The data from the think aloud shows further that none of the participating students used any pre-reading strategies before reading. For instance, Marium and Sarah started reading the text without bringing into use any of the pre-reading strategies as is noticeable from the following extracts (As stated earlier, the text in bold reflects what the student read aloud. Text in italics reflects the participant's spoken thoughts):

> **Science and Society. Science has got no less importance than any other subject. We can enumerate.** I can't understand.
>
> (Extract 6.7, Marium's TAP, 06.09.13)

> **Science and Society. Science has got no less importance than any other subject. We can enumerate a number of advantages that we can enjoy only because of science. Especially in today what it is quite necessary to equip one's self and one's children with the educate knowledge**. I did not understand it.
>
> (Extract 6.8, Sarah's TAP, 06.09.13)

The finding that the participating students used no pre-reading strategies during the think aloud showed that in terms of their reading behaviour they resembled three participating students in Cycle 1 who too did not use any reading strategies before reading (for details see Section 5.1.2).

Besides that, like students in Cycle 1, students of this cycle mainly employed bottom-up reading strategies during reading. In more detail, out of the 26 students who filled in the SORS questionnaire 16 students always and 06 usually reread the text to increase their understanding (item 25); 09 students usually, and 09 sometimes used a reference material such as a dictionary (item 13) (see Appendix 6 for viewing the frequency of other strategies used by students). Interview data further highlighted that among my participating students, those who had low reading ability or could not read with any useful understanding in English either accepted help from others or employed bottom-up strategies during reading to comprehend the text. This is noticeable from the following extract:

> If I do not understand something I go to my teachers, my elders. I understand the meaning through them (…) I also look for meaning in dictionary if the (English) book has difficult things in it.
>
> (Extract 6.9, Translation from Nida's Interview, 06.09.13)

Here, it can be seen that like Khadija and Ali in Cycle 1 (see Section 5.1.2) Nida asked for help from others, teachers or elders, when she realized that she did not

understood what she read. Moreover, like Ali in Cycle 1 she deployed the bottom-up strategy of using dictionary to cope with 'difficult' lexical items in the text.

Like Nida, Sarah also took help from a family member, her brother, when she encountered difficulties in reading. She also used dictionary to determine the meaning of the word(s) and/or text:

> If I do not understand something I follow dictionary. Or ask meaning from brother. If I do not understand it at all I ask my brother to explain it all (…) Actually mostly I ask my brother. If my brother is sitting next to me or is in the next room then before taking out the dictionary I ask my brother. If he does not know it either then I open the dictionary.
>
> (Extract 6.10, Translation from Sarah's Interview, 06.09.13)

The finding that Nida and Sarah reported the strategies they employed to find the meaning of a word showed that, like participating students in Cycle 1, they were metacognitively aware of the strategies they employed to maximize their comprehension (see Section 5.1.2). In addition, it showed that they were self-monitoring their understanding of the text. However, it appeared that, like participating students in Cycle 1, they were not yet skilled in independent, strategic problem solving. Also, they tended to adopt a text-driven, bottom up approach to reading. This implied that during the intervention stage I needed to emphasize that 'successful reading is much more than simple decoding' (Eskey 1998: 96), just as I did in Cycle 1.

In contrast to Cycle 1, however, all my participating students also used the top-down strategy of activating prior knowledge during reading. For instance, two of my participating students activated their prior knowledge during reading to elaborate and

give examples related to the idea presented by the author. An instance of this use of the strategy of activating prior knowledge is evident from the following extract:

> **Through active scientific researches there have been numerous advances in technology that help to make our lives easier. Development of satellite communications has enable individuals to speak to their loved ones around the world. Just think how much more can be achieved with improved contact between business partners, doctors, engineers and transport agencies**. Scientific researches are discussed in this paragraph. Through these researches our lives has become easier such as like parent's life, doctor's life. Due to scientific different machines have been invented like x-ray machine etc. Doctors can treat their patients easily. Engineers invented machines. Transport agencies, aero planes, these are also the inventions of science which are making our life easy, and playing a vital in role in making our lives better.
>
> (Extract 6.11, Translation from Nida's TAP, 06.09.13)

Moreover, two of the participating students activated prior knowledge on the ideas discussed in the text to agree with the author. This could be seen in the following extract from Sarah's think aloud:

> Sarah: **Science in order to live a safe and better life. Nowadays few children die of khurable diseases because of vaccination programs introduced by global agencies. The vaccines were develop forming intensive carefully managed scientific activities by educating parents about the importance of preventive preventative actions such as inoculation, their children will be protected from diseases that would previously have caused sickness and disability thus adding pressure and reducing protectivity on communities.**
>
> (Silence)
>
> Researcher: What did you think while reading the paragraph?

> Sarah: I thought that what is written in it is right. I mean it is written in it that for our diseases we have vaccinations. I did not think anything else.
>
> (Extract 6.12, Translation from Sarah's TAP, 06.09.13)

Here, it appears that Sarah tapped the prior knowledge she had on the topic of disease and vaccinations. Consequently, she agreed with the text.

The previous Extracts 6.11 and 6.12 indicated to me that students activated their prior knowledge during reading for different purposes. However, they appeared to be unaware of their use of this strategy as they did not report using it either during the interview or TAP. This made me think that either students were not aware that activating prior knowledge is a reading strategy, or their use of the strategy was automatic. Griffiths (2013: 9) states that 'strategies can operate somewhere on a continuum between deliberate and automatic'. No matter what the reason was for not reporting using this strategy, I decided that during the intervention I would try to help students raise their awareness about their use of this and other strategies in their current repertoire. I decided to do so since it is considered important to provide 'support to learners in assessing and taking an inventory of strategies that are currently in use' (Griffith & Ruan 2005: 13). On the basis of the finding that students used only one top-down strategy of reading during think aloud, I also decided that I would introduce other top-down strategies of reading during the intervention just as I did in Cycle 1 as successful reading entails 'bottom-up perceptual and linguistic skills as well as higher-order cognitive processes' (Eskey 1998: 96).

6.1.3 Students' regulation of reading

The data from the think aloud and interviews indicated that just as in Cycle 1 all four participating students in Cycle 2 regulated their processing of text during reading.

This can be seen from Extracts 6.7 and 6.8 in which Marium and Sarah appeared aware of their lapse in understanding the opening of the text. Extracts 6.9 and 6.10 also reveal that Nida and Sarah reported taking note of their lack of understanding of the text and the word(s) during reading. Students monitoring and evaluation of their understanding of the text implied that like other self-regulated readers they do 'become aware of their loss of attention and comprehension' (Pintrich 1995: 6) during reading. However, I also noticed that students of this Cycle did not appear to plan their reading or evaluate their process of reading, just as students in Cycle 1. This implied that I needed to inform students that self-regulation is a 'multi-tiered', 'cyclical, three-way process' (Schreiber 2005: 218) that involves planning, monitoring and evaluation activities. Moreover, I needed to help students plan, monitor and evaluate their reading during the intervention stage of the study. I planned to do so since research on reading suggests that reading instructions should help students 'develop strategies that facilitate metacognitive awareness and regulation in the service of finding meaning in text' (Schreiber 2005: 218).

6.1.4 Students' reading ability

Just as in Cycle 1, the data from WELT revealed that I had students with different reading abilities in my class (see Table 6.1). In this cycle the students who took WELT were 22 in number. On comparing the number of students who scored Grade A, B, C, D or E in the reading test in Cycle 1 with that in Cycle 2, I found that overall more students in Cycle 1 had higher reading ability as compared to students in Cycle 2. In more detail, in contrast to Cycle 1 in Cycle 2 I had no student in the top band (Grade A) and one student in the lowest band (Grade E). I also found that as compared to Cycle 1, fewer students scored Grade B and more students scored Grade

C in Cycle 2. Readers may refer to Table 6.1 to see the number of students in each ability grade in Cycle 1 and 2.

Table 6.1 Students in each ability grade (Cycle 1 and Cycle 2)

Grade	Cycle 1 No of students: 27	Cycle 2 No of students: 22
Grade A	01	00
Grade B	16	07
Grade C	09	11
Grade D	01	03
Grade E	00	01

The finding that I had fewer students with good reading ability (Grade B) and more students with average reading ability (Grade C) in this group reminded me that, in Cycle 1, students who had good reading ability gained procedural and conditional knowledge of the strategies better as compared to those who had average reading ability (for details see Section 5.3.2.1). In the light of this finding, I decided to discuss more than once the how and the when of the use of the strategies I would introduce during this cycle to assist students of all abilities gain complete procedural and conditional knowledge of strategies.

6.1.5 Students' interest in reading

I found that more students in Cycle 2 were interested in reading as compared to Cycle 1. Specifically, ‘six students like to read academic material in the form of course books, four students like to read Islamic books, four students like to read novels and three students like to read newspaper’ (Extract from teacher-researcher’s journal, 19.08.13). Interview data also showed that three of my participating students liked to

read course books. Two of them also liked to read novels. For instance, Marium who had good reading ability reported that she had a 'favourite' course book and she also liked to read novels during vacations as is illustrated from the following extract:

> Marium: I read Chemistry, English, Microbiology the most (…) My favourite book is Lehninger, biochemistry.
>
> Researcher: Is this your course book?
>
> Marium: Yes, I also read stories, novels.
>
> Researcher: How often you read novels? Once a month or once in two or three months?
>
> Marium: Because I have lots of course work it depends on time. Mostly I read in June and July during vacations.
>
> (Extract 6.13, Translation from Marium's Interview, 06.09.13)

Similarly, Nida who had poor reading ability reported that she read course books and she also read novels once the semester comes to an end:

> I read Chemistry book (…) or I read English book (…) I read novels etc (…) I do not read novels during the semester. I read them after my exams.
>
> (Extract 6.14, Translation from Nida's Interview, 06.09.13)

The finding that more students in Cycle 2, as compared to that in Cycle 1, appeared interested in reading academic and non-academic texts suggested that they probably had initial inspiration regarding reading. Though this finding was positive for the purposes of the study, in the spirit of reflexivity I asked myself if I had influenced students' thinking during the lessons due to which they reported being interested in reading. This then made me wonder if students really care about reading. Since in response to this question I was left with only more questions, I decided to use the motivational teaching strategies that I used during Cycle 1 in this cycle to try to develop and/or enhance all students' interest in reading. This appeared to be a

worthwhile decision to me since researchers view ‘motivation as not only involving the initial spark but as also embracing the maintenance of desire over time’ (Oxford 2011: 72). Moreover, since motivation is dynamic and constantly changing (Dorneyi 2001) I thought it would be a good idea to try to positively influence it as it could decline during the course of the study. I also decided that unlike Cycle 1, I would try to nurture students’ sense of efficacy since ‘self-efficacy relates positively to motivation to employ learning strategies’ (Schunk 1991: 215). I suspected that some students who had low reading ability might have poor self-esteem, since Butkowsky and Willows (1980) point out that low reading ability results in poor self-esteem in students.

6.1.6 Further development of students' interest in reading

Similar to Cycle 1, I employed motivational teaching practices to further stimulate and/or sustain students’ interest in reading during the lessons on the reading test and the SORS questionnaire. Specifically, during the lesson on the reading test held on the 26th of August 2013 I informed students about the purpose of administering the test, just as I did in Cycle 1. Moreover, and unlike Cycle 1, I facilitated a detailed discussion on the answer of each test item. In more detail, I gave students a test paper of one of their peers and asked them to silently and individually decide by reading the texts if their peers’ answers were correct or not. I also asked them to mark the evidence in the text that helped them make this decision. Once students completed this step, I asked them to discuss with a partner what they thought was the right answer of each test item along with the evidence for their response. Next, I facilitated a whole class discussion on each test item. During the discussion, I elicited from students who shared the right evidence for the test item under discussion what they did to arrive at it. Successful students had used several strategies such as underlining facts and

figures, rereading, activating prior knowledge and taking notes during the test. In this cycle I undertook these steps for three reasons. First, to help students become aware of the strategies they could use that could help them succeed in future. I thought that such awareness could motivate students to use strategies. Second, to help students to consider using strategies worthwhile. In this regard the literature indicates that 'often students cannot appreciate the significance of strategic behavior unless they witness the facilitative effects of strategies on another's behaviour' (Short & Weissberg-Benchell 1989: 49). Third, to help students realize that the errors in reading could be the result of incorrect strategy choice rather than low ability. In other words, I did not want students to attribute reading problems to 'suspected' lack of ability. Rather, I wanted them to attribute the problems to a deficiency in the use of task-appropriate strategies. I thought that this realization could help improve students' sense of efficacy since the literature indicates that 'attributing students' errors to an incorrect strategy choice will sustain self-efficacy better than attributing the errors to low ability' (Zimmerman & Paulsen 1995: 18).

Making students think about the correct answers and the strategies they used or could use in a test was reassuring for one of the students. This is illustrated from the following extract that indicates that this student thought that he/she could improve his/her English with hard work:

> *I realize that if I want to improve my English then I can do because anything is not possible only struggles are required to achieve any goal and I can do it.*
>
> (Extract 6.15, Anonymous exit slip, 26.08.13)

Besides that, it appeared that the lesson stimulated some students' desire to improve their reading skills probably because they gained knowledge regarding the use of strategies during reading:

> *We have learn how to skimming the text and how to ans the question by reading the text. We want to improve our reading skills.*
>
> (Extract 6.16, Anonymous exit slip, 26.08.13)

Here, it could be seen that the student who wrote this comment reported gaining procedural knowledge of the strategy of skimming.

I also found that most of the students considered what they had learnt in the lesson as useful. The following extract typifies students' reaction towards the lesson:

> *Today's class was good. Discussing about what we did in the paper and finding the right answers together was very helpful.*
>
> (Extract 6.17, Anonymous exit slip, 26.08.13)

The previous Extract 6.16 and 6.17 also suggest that the students who wrote the comments found gaining knowledge of the strategies they used or could use during reading useful.

During the lesson on the SORS questionnaire I also tried to increase students' interest in reading. For this purpose, I shared with students the reason for filling in the questionnaire so as to make them think that the task is worthy of time and effort, just as I did in Cycle 1. However, unlike Cycle 1 I also asked students to select from the questionnaire and share with other students the strategies they intend to use in future. I did this since I noticed in Cycle 1 that some students did not realize that they could

use strategies to improve their reading skills as they wondered even after filling in the SORS questionnaire how they could become a good reader (see Section 5.1.6). Besides that, in this Cycle I tried to make students realize the importance of goal setting before asking them to write goals. In this regard I gave them a brief input during which I also shared with them the following quote from Benjamin Franklin: 'If you fail to plan, you are planning to fail'. It appeared that students liked the quote as they asked me to repeat it so that they could take a note of it. At the end of the lesson I learnt that the class motivated some students' interest in reading. This is noticeable from the following extract that shows that a student intended to start reading as a result of the lesson, perhaps to become a skillful reader:

> *I don't have a interest in reading but in today's class I have learned a lot of facts about reading. So, INSHALLAH I must start reading and listening from today.*
>
> (Extract 6.18, Anonymous exit slip, 04-09-13)

I also learnt that another student decided to focus on reading strategies to improve his/her reading. His interest in becoming a better reader is illustrated from the extract below:

> *Today, I know about my reading level. By finding my level I will try my level best and best by focusing on the strategies.*
>
> (Extract 6.19, Anonymous exit slip, 04-09-13)

Besides that, it appeared that the learning students experienced during the lesson made one of them feel self-assured. This is noticeable from the following extract that highlights that he/she thought that he/she was capable of doing 'everything' to improve his/her future:

Today we learnt a lot of things to build up our future and inshallah I can do everything in my life.

(Extract 6.20, Anonymous exit slip, 04-09-13)

Overall, it appeared that heightened awareness of self as reader and reading strategies motivated some students to read as they became interested in reading and/or in becoming a good reader. As mentioned before, this was what I aimed to achieve since 'even the reader with the strongest cognitive skills may not spend much time reading if he or she is not motivated to read' (Wigfield et al. 2004: 299).

6.2 Intervention

I undertook the intervention stage of the study between September and November 2013 after collecting background information on my students' awareness, use and regulation of reading strategies. In total, the intervention stage consisted of twenty lessons, two more than in Cycle 1. The lessons were each 60 minutes long. Similarly to Cycle 1, all the students maintained a diary during this stage and provided feedback on the lessons by means of exit slip. In the section below I describe and present findings from the lessons I took to promote metacognition of the strategies of prediction, activating prior knowledge, identifying the main idea, skimming and scanning in students during the intervention stage.

6.2.1 Promoting students' metacognition of selected reading strategies

By and large in Cycle 2, I followed the same instructional principles that I did in Cycle 1 to promote students' metacognition of above mentioned reading strategies. This included explicit discussion on the declarative, procedural, and conditional knowledge associated with using the strategies, teacher and expert student modelling, collaborative learning and reflection on learning. However, what differed in this cycle

was that I did not introduce think aloud at the start of the study as per the decision I took during Cycle 1 (see Section 5.2.1.1). Rather, I provided students with opportunities to first individually note down the strategies they used on the assigned texts and then have a dialogue with other students to note down the similarities and differences on the use of strategies by them and others on the same text (see Section 6.2.1.2). Further, I introduced the SL (see Figure 5.8, p. 168) at the start of the intervention to help students critically reflect on their application and use of the strategies introduced during the lessons (see Section 6.2.1.1). The texts and the tasks I used to promote students' metacognition on these strategies were almost the same as that of Cycle 1. In this section I will describe and reflect on my lessons that aimed at promoting metacognition of the selected reading strategies. I will also integrate students' perception and feedback on the lessons.

6.2.1.1 Predicting and activating prior knowledge

Like Cycle 1, the first reading strategy I provided metacognitive strategy instruction on was the strategy of prediction. The text from Unit 2 of the textbook titled 'Neelum Valley: A Gem to Treasure' and the tasks given in the same unit were used for this purpose, as in Cycle 1. I facilitated three lessons on this reading text on the 11th, 16th and 17th of September 2013. To illustrate what I learnt about the metacognitive strategy instruction from the lessons I present below an extract from my journal. This extract describes how these lessons unfolded and highlights the similarities and differences between the lessons I presented in Cycle 1 and Cycle 2 on the same text, which explains its length:

> I facilitated the first lesson on 'Neelum Valley: A Gem to Treasure' on the 11th of September 2013. Similarly to Cycle 1, I opened the lesson by eliciting

from students the meaning of the term 'prediction' to provide declarative knowledge on the strategy of prediction. When I asked students to make predictions about the text by looking at its title as per the task given in the textbook (see Figure 5.1, p. 140), I noticed that students were not able to do so till I facilitated a discussion to activate their prior knowledge on the topic, just as in Cycle 1. I also noticed that while making predictions students correctly predicted that the text would talk about lack of facilities, poor living conditions or poor education in the Neelum Valley. During the discussion on the predictions students made on the text, I also made predictions about the text to model the strategy. After teacher modeling I wanted to start the next activity. However, the in-charge of the department informed me that the lesson needs to come to an end due to a protest demonstration in the university. I therefore took an in-class decision to assign homework to students to help them consciously think about the procedural and conditional knowledge of the strategies introduced to them during the lesson. In the light of my decision, I introduced the SEM (see Table 3.1, p. 75) to students. I also briefly elicited from students the 'what' and 'when' on the use of strategies of prediction and activating prior knowledge. At the end of the discussion, I asked students to fill in the matrix from home for the discussed strategies.

In the next class held on the 16th of September 2013, I facilitated a pair discussion followed by a whole class discussion on the matrix students filled in from home since students were keen to find out whether what they wrote in it was correct or not. During the discussion I noticed that students were not aware that they needed to activate their prior knowledge to make predictions on the basis of it. This indicated to me that they probably do not even know that 'the strategies are mutually dependent on, and continually inform each other' (Almasi 2003: 106). I therefore brought to students' knowledge that I tried to activate their prior knowledge in the previous class to help them make

prediction on the basis of it. In addition, I informed students that 'strategic readers are not characterized by the volume of tactics that they use but rather by the selection of appropriate strategies that fit the particular text, purpose, and occasion' (Paris et al. 1991: 611).

On the 17th of September 2013, I facilitated Activity 3 that required students to select the main idea of one of the given paragraphs in groups to later make predictions on the basis of it (see Figure 5.2, p. 142). For the purposes of the activity, I divided students in groups and assigned each group a paragraph to read and give a title to. Next, I asked students to move around and note down the title students from other groups gave to their assigned paragraph (see Picture 6.1).

Picture 6.1 Students eliciting titles from other students on assigned paragraph

Once students seemed to have listed titles for each paragraph, I asked them to go back to their original groups and again make predictions about the text on the basis of it, as per the instructions given in Activity 3. Students appeared very engaged during the activity. At the end of it they keenly read the text. Some of them also shared with the entire class if their predictions were

correct or not. At the end of the activity, I elicited from students if in their opinion success in reading is the result of effort or luck to get an insight into their attributional belief. Whilst some students remained quiet on this, others said 'effort'. I took this opportunity to inform students that 'effort is often not a sufficient condition for success; rather, effort in conjunction with the correct strategy will yield success' (Short & Weissberg-Benchell 1989: 54). Towards the end of the lesson I introduced the SL (see Figure 5.8, p. 168) to students in detail. I then asked students to fill in the SL at home to report and evaluate their use of the strategies of prediction and activating prior knowledge during reading the text.

(Extract 6.21, Teacher-researcher's journal, 17.09.13)

The above extract shows the similarities and differences between the lessons I facilitated in Cycle 1 and this cycle on the text 'Neelum Valley: A Gem to Treasure'. The first similarity the extract highlights was that I helped students activate their prior knowledge in both the cycles. The second similarity it shows was that the first three instructional steps I took to facilitate the metacognitive strategy instructions in both the cycles were the same, as can be seen from rows three and four in Table 6.2.

Table 6.2 Similarities and differences in the instructional steps taken during metacognitive reading strategy instruction on the text 'Neelum Valley: A Gem to Treasure' in Cycle 1 and Cycle 2

Components of Metacognitive Strategy Instruction		**Strategy Declarative Knowledge (What)**	**Strategy Significance (Why)**	**Strategy Procedural Knowledge (How)**	**Strategy Conditional Knowledge (Where & When)**	**Strategy Evaluation**	**Guided Practice**
Facilitated mainly by means of		Whole Class Discussion	Strategy Evaluation Matrix (SEM)	Teacher Modeling (TM) & Strategy Evaluation Matrix (SEM)	Strategy Evaluation Matrix (SEM)	Strategy Log (SL) & Regulatory Checklist (RC)	Activities
Order of steps I took during the lessons on 'Neelum Valley: A Gem to Treasure' Main strategies taught: Prediction and Activating Prior Knowledge	**Cycle 1**	A	E	C (TM)	E	X	B
				E			D
	Cycle 2	A	D	C (TM)	D	F (SL)	B
				E			E

The difference that the extract highlights between the lessons was that in Cycle 1 students further practiced the strategies of prediction and activating prior knowledge before reflecting on the procedural and conditional knowledge related to the strategies. By contrast, students filled in the SEM to reflect on the procedural and conditional knowledge related to the strategies in Cycle 2 before further practicing using the strategies introduced during the lesson (see Table 6.2). Another difference

between the lessons that the extract illustrates was that in the third lesson of Cycle 2 I introduced the SL to help students to reflect on and evaluate their use of strategies. In Cycle 1, I introduced the SL three weeks before the end of the intervention stage of the study (see Section 5.2.1.3). I was able to introduce the SL from the start of the intervention stage in Cycle 2 since I was more aware of the process of metacognitive reading strategy instruction as compared to Cycle 1 when I just started to teach strategically. My developing understanding resonated with the literature that indicates that becoming an effective strategy teacher takes time (Brown & Coy-Ogan 1993; El-Dinary & Schuder 1993) and that 'learning to teach strategically requires an intense amount of reflection and effort from teachers' (Almasi 2003: 232).

During these lessons I also realized that perhaps one of the reasons why it is not easy to teach strategic reading processes (Almasi 2003) is that it requires spontaneity on the part of the teacher as the nature of the process is dynamic and emergent. This became apparent to me when I noticed that I not only needed to spontaneously reshape the lessons during both the cycles to meet the needs of my learners, but I also needed to bring about a variation in my lesson plan to meet the demands of the situational context as well. For instance, in this cycle I departed from my lesson plan and asked students to fill in the SEM from home due to a protest demonstration in the university (see Extract 6.21). While reflecting on my response to what was happening around me and the variation I brought to my plan, I realized that I was able to improvise new steps during the lesson since I was aware of the process of metacognitive reading strategy instruction and was well-prepared.

I also learnt during the lesson on the 16th of September 2013 that some students found filling in the SEM difficult as they could not differentiate between the 'how' and

'when' of the strategy use. This was later reported by Rida during the interview as well:

> Miss we were able to write 'why to use', but when and how to use used to appear similar. I could not understand how to write 'how to use'. I used to write the same in 'when to use' and 'how to use,' so it was a bit difficult to differentiate between them.
>
> (Extract 6.22, Translation from Rida's interview, 13.11.13)

This feedback prompted me to provide students a completed template of the SEM that I had filled in on the strategies of prediction and activating prior knowledge so as to help them see how to fill the columns of the matrix in future (for details regarding the lesson on the completed template of the SEM see Section 6.2.1.2).

On the 23rd of September 2013, I facilitated a lesson to provide students with an opportunity to share the SL they filled in from home with other students. For this purpose I divided students in groups. While grouping students I ensured that each group had one student who scored Grade B (the top score for this group) in the test. The aim of the lesson was manifold. The first was to help students to think about how they and other students had used the strategies as the SL asked students to reflect about the procedure they used to apply the strategy ('How did you use this strategy?'). I thought it was important to enhance students' procedural knowledge of the strategies since during Cycle 1 a participating student with average ability level applied a strategy ineffectively as she had incomplete procedural knowledge of a strategy (for details see Section 5.3.2.1). Moreover, in the lesson held on the 16th of September 2013 students were not able to differentiate between how and when of the strategy use. The second aim was to help students to evaluate the strategies they used by responding to the following question in the SL: 'Did it seem to help? Why or why not?'. The third aim was to provide students with an opportunity to discuss their plans

regarding their use of strategies in future by pondering over the question 'Would you try it again? If so, would you do it differently? Why or why not?' The final aim of the lesson was to raise students' awareness on the inter-individual and intra-individual differences in the use of strategies by them and their peers on the same text. During the lesson some students found answering the questions given in the log difficult. One of the students later reported the challenge she faced while filling in the log:

> The first time I filled the strategy log I found it difficult to understand how to answer the questions.
>
> (Extract 6.23, Translation from Marium's interview, 08.12.13)

Students' feedback on the SL made me realize that not only should I have modeled using it as I did during Cycle 1, I should have also asked students to fill in the SL in the class as this would have given them an opportunity to discuss it with others, including me, as and when required while filling it in.

In the lesson held on the 23rd of September 2013 I also provided students with further practice on the strategies of prediction and activating prior knowledge on the text 'The Pride of Pakistan' just as I did in Cycle 1. However, in this lesson, unlike that of Cycle 1 in which students carried out think aloud (see Section 5.2.1.1), I facilitated three tasks before reading the text. First, I asked students to note down what they already knew about the personalities discussed in the text. Second, I asked them to think about what they would want to know about the personalities discussed in the text. Third, I asked students to predict what in their opinion the text would discuss about them. Once students had completed the task I facilitated a pair discussion followed by a whole class discussion on what students had written. Like Cycle 1, I also carried out teacher modeling by means of think aloud on the text. A glimpse of what I did during teacher modeling could be seen in the extract below:

> Mam read the title of the text 'Pride of Pakistan' and made a prediction to show us how to do it. And then read its subheading, for example, Abdul Sattar Edhi and activated her prior knowledge to show what the text could have.
>
> (Extract 6.24, Translation from Nida's diary, 8.11.13)

The extract above not only highlights what I did during teacher modeling but also suggests that Nida attentively took a note of the strategies I used during it.

To conclude, the lessons on the strategies of prediction and activating prior knowledge made me realize the importance of spontaneous decision making on the part of the teacher during metacognitive reading strategy instruction.

6.2.1.2 Identifying the main idea

As in Cycle 1, the second reading strategy I selected for providing metacognitive instruction was the strategy of identifying the main idea. The text I used for this purpose was the one I also used in Cycle 1 titled 'Obtaining and Giving Information'. In the lesson held on the 27th of September 2013 I provided declarative knowledge about the strategy by facilitating a discussion on it. In this lesson I also informed students that the strategy they used to give title to the assigned paragraph while carrying out activity 3 of the text 'Neelum Valley: A Gem to Treasure' (for details of the activity see Extract 6.21 and Figure 5.2, p. 142) is called the strategy of identifying the main idea. I asked students to try to recall and share with their partner what they did during the task. Next, I provided teacher modeling of the strategy of identifying the main idea. Students then practiced the strategy in groups by carrying out the task given in the textbook (see activity 2, Figure 5.3, p. 153). The task required students to identify the main idea of the paragraph assigned to their group.

During the lesson that students found identifying the main idea difficult. They informed me that they wanted to practice it further as they did not understand how to identify the main idea. One of the students wrote in this regard:

> *Selecting key idea was difficult for me. Everything in the para was like the main idea. Please repeat it.*
>
> (Extract 6.25, Anonymous exit slip, 27.09.13)

This was later reported by one of the participating students in the interview thus:

> In the beginning I could not identify the main idea.
>
> (Extract 6.26, Translation from Marium's Interview, 13.11.13)

This feedback made me realize that I needed to provide students with further practice in using the strategy of identifying the main idea. Therefore, in the lesson held on the 4th of October 2013 I provided students with a completed SEM (see Table 6.3, p. 233) and asked them to underline the key word(s) in its statements given. I provided students a completed SEM for three reasons. The first was to help students individually identify the main idea at the level of sentence to make the strategy appear easy for them. The second was to guide students how the columns of SEM are filled in before asking them to fill them for the strategy of identifying the main idea since in the lesson held on the 16th of September 2013 students found it difficult to differentiate between and write 'how' and 'when' of the use of strategy (see Section 6.2.1.1). The third was to provide students an opportunity to recall the metacognitive knowledge related to the strategies of predicting and activating prior knowledge. Once students had underlined the key word(s) in each statement I elicited from them the word(s) they had underlined. I noticed that most of the students identified the correct key word(s) from each statement. At the end of the activity, students filled in the SEM

on the strategy of identifying the main idea. I asked students to discuss what they wrote first in pairs and then share it with all students during whole class discussion on it. Next, I asked students to fill in the SL on the strategy of identifying the main idea. I brought the lesson to a close by facilitating a pair discussion followed by a brief whole class discussion on the SL students filled in.

Table 6.3 Based on 'Strategy evaluation matrix' (Schraw 1998: 120)

Strategy	How to Use (P)	When to Use (C)	Why to Use (C)
Prediction	Make a guess what the text is about or what will happen next in the text based on evidence from the text (either pictures, charts or word clues) and what you know from your prior readings.	Before and during reading	Makes one pay attention to details of the texts. Makes one generate hypothesis about what the text will discuss next. Makes one more involved in the text.
Activating Prior Knowledge	Pause and think about what you already know. Ask what you don't know.	Before and during reading	Makes new knowledge easier to learn and remember.
Slow down	Stop, read, and think about information.	When information seems especially new and important	Enhances focus of one's attention.
Reread	Stop, read again and think about evaluation.	When information seems difficult to understand.	Enhances one's understanding of text.

Students' feedback showed that the lesson made it easy for some students to identify the main idea as can be seen from the following extract:

This class help me to find out main idea in a very easy manner.

(Extract 6.27, Anonymous exit slip, 04.10.13)

The feedback on the lesson also showed that the task of underlining key word(s) in a completed SEM helped some students understand how to fill in the matrix for the strategy of identifying the main idea. One of the participating students reported this during the interview:

Rida: Miss we were able to write 'why to use', but 'when to use' and 'how to use' used to appear similar. I could not understand how to write 'how to use'. I used to write the same in 'when to use' and 'how to use,' so it was a bit difficult to differentiate between them.

Researcher: Ok. Then what did you do?

Rida: Miss then you read a strategy log to us. Then you asked from us the main key words from it. That helped us understand it easily.

(Extract 6.28, Translation from Rida's interview, 13.11.13)

Here, Rida indicated that the scaffolding I provided to students by facilitating the activity of identifying the main idea on a completed SEM, although she mistakenly called it the SL, helped students understand the difference between procedural and conditional knowledge. What is noteworthy here that Rida's experience of filling in the SEM was affectively charged as can be seen from the words 'difficult' and 'easily' she used to describe it. This indicated to me that her metacognitive knowledge of self and the metacognitive experience she had of filling in the SEM had a cognitive as well as an affective character.

On comparing the lesson held on the strategy of identifying the main idea in Cycle 1 and 2, I realized that the instructional steps I took to facilitate the metacognitive

reading strategy instruction on the lesson 'Obtaining and Giving Information' in Cycle 2 were different from that of Cycle 1 as illustrated in Table 6.4:

Table 6.4 Similarities and differences in the instructional steps taken during metacognitive reading strategy instruction on the text 'Obtaining and Giving Information' in Cycle 1 and Cycle 2

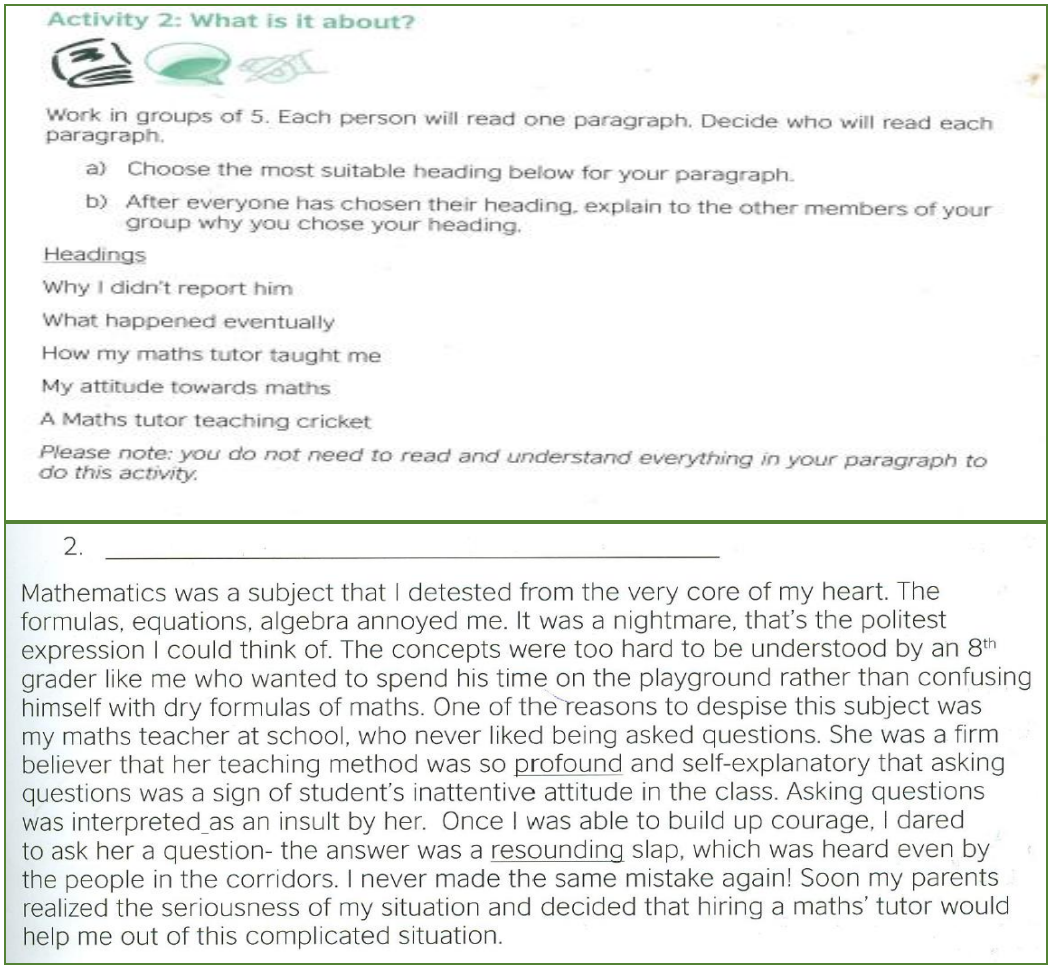
<table>
<tr><th colspan="2">Components of Metacognitive Strategy Instruction</th><th>Strategy Declarative Knowledge (What)</th><th>Strategy Significance (Why)</th><th>Strategy Procedural Knowledge (How)</th><th>Strategy Conditional Knowledge (Where & When)</th><th>Strategy Evaluation</th><th>Guided Practice</th></tr>
<tr><td colspan="2">Facilitated mainly by means of</td><td>Whole Class Discussion</td><td>Strategy Evaluation Matrix (SEM)</td><td>Teacher Modeling (TM) & Strategy Evaluation Matrix (SEM)</td><td>Strategy Evaluation Matrix (SEM)</td><td>Strategy Log (SL) & Regulatory Checklist (RC)</td><td>Activities</td></tr>
<tr><td colspan="8"></td></tr>
<tr><td rowspan="3">Order of steps I took during the lessons on 'Obtaining And Giving Information'

Main strategy taught: Identifying the Main Idea</td><td rowspan="2">Cycle 1</td><td rowspan="2">A</td><td rowspan="2">B</td><td>B</td><td rowspan="2">B</td><td rowspan="2">X</td><td>D</td></tr>
<tr><td>C (TM)</td><td></td></tr>
<tr><td>Cycle 2</td><td>A</td><td>D</td><td>B (TM)
D</td><td>D</td><td>E (SL)</td><td>C</td></tr>
</table>

The above table shows that in Cycle 2 I facilitated a discussion on the why, when and where of the use of the strategy (i.e., procedural and conditional knowledge) after giving students practice of using the strategy of identifying the main idea, whereas in Cycle 1, I provided students with procedural and conditional knowledge on the strategy of identifying the main idea and then provided practice of using it. Moreover,

unlike Cycle 1, in Cycle 2 I used the SL to help students evaluate their use of the strategy.

In the class held on the 9th of October 2013 I provided students with an opportunity to practice identifying the main idea at the level of paragraph. For this purpose, I asked students to read the text 'A Painful Memory?' and individually carry out the task of matching headings with the given paragraphs (see activity 2, Figure 5.4, p. 158). I also asked students to underline all words that helped them identify the main idea of the paragraph. Moreover, I asked students to note down the strategies they had used during the task, just as I did in Cycle 1. At the end of this task, I divided students in pairs and asked them to share with his/her partner the task and the strategies they had used to carry out the task. I also informed students that they were expected to write in their diaries the strategies used by them and their partner. At the end of pair discussion I facilitated a whole class discussion on each paragraph in which the students pointed out the words that helped them identify the main idea. For instance, students reported that when they read words such as 'detested', 'annoyed', 'nightmare', and 'despise' in paragraph 2, they became certain that out of the given headings the appropriate heading for this paragraph was 'My attitude towards maths' (see Figure 6.1).



Activity 2: What is it about?

Work in groups of 5. Each person will read one paragraph. Decide who will read each paragraph.

a) Choose the most suitable heading below for your paragraph.

b) After everyone has chosen their heading, explain to the other members of your group why you chose your heading.

Headings

Why I didn't report him

What happened eventually

How my maths tutor taught me

My attitude towards maths

A Maths tutor teaching cricket

Please note: you do not need to read and understand everything in your paragraph to do this activity.

2. _____

Mathematics was a subject that I detested from the very core of my heart. The formulas, equations, algebra annoyed me. It was a nightmare, that's the politest expression I could think of. The concepts were too hard to be understood by an 8th grader like me who wanted to spend his time on the playground rather than confusing himself with dry formulas of maths. One of the reasons to despise this subject was my maths teacher at school, who never liked being asked questions. She was a firm believer that her teaching method was so profound and self-explanatory that asking questions was a sign of student's inattentive attitude in the class. Asking questions was interpreted as an insult by her. Once I was able to build up courage, I dared to ask her a question- the answer was a resounding slap, which was heard even by the people in the corridors. I never made the same mistake again! Soon my parents realized the seriousness of my situation and decided that hiring a maths' tutor would help me out of this complicated situation.

Figure 6.1 Identifying the main idea activity and paragraph 2 from the text 'A Painful Memory?'

Most of the students liked listing and sharing strategies with their peers, just like students in Cycle 1. During the lesson I also noticed that different students used different combination of strategies to carry out the task, just like students in Cycle 1 (see Section 5.2.1.2). This can be seen from the notes students took during the lesson as well as the entries students made in their diaries. For instance, Rida noted that she used the strategies of prediction, skimming and visualizing in first and fourth paragraph, while she noted that her partner, Nazia, used the strategies of visualizing, prediction and skimming while reading. What Rida noted corroborated data from her diary as noticeable in the extract given below:

> I used prediction strategy in first paragraph because when I read the first line I predict that there is someone who is looking some old pictures which may be of event or birthday party or picnic in which bad scene happen. (Lines deleted). I use skimming, prediction and visualizing strategy in 4th paragraph because as the 1st line give us the image of teacher. His attitude towards study. I also see some words which tells us the nature of the tutor like (slowly sip, a hot cup of tea helped me a lot with my batting). (Lines deleted). In first paragraph, when she (Nazia) read the first line (while looking through some old boxes I came across an old photograph) she start visualizing that there is a boy which is a author of this text has some old pictures in his hands and he is remembering some old memories of his life. Here she also applied prediction strategy that this paragraph may be about his that moments and maybe he will share his feelings with us which came to him by looking that pictures. While reading she focused on some words and sentences. She tried to search main idea that is, she applied also main idea strategy here. (Lines deleted). In 4th paragraph, she (Nazia) used two strategies prediction and skimming. When she read the first line she predicted that now she will talk about his teacher attitude towards teaching him. She thought that this may contain extra detail so she just start skimming.
>
> (Extract 6.29, Rida's diary, 09.10.13)

As was noticeable from above extract, Rida used the strategy of prediction in the first paragraph and the strategies of skimming, prediction and visualizing in paragraph four. In contrast, Nazia used the strategies of visualizing, prediction and identifying the main idea in the first paragraph and the strategies of prediction and skimming in paragraph four.

On the other hand, Nida noted that she used the strategy of prediction in the first paragraph and activating prior knowledge in the second paragraph, whereas Safia used the strategy of activating prior knowledge in the first paragraph and imagination (visualization) in the second paragraph as noticeable from the following diary entry:

> First of all I read the title of the text and made a prediction that may be it has discussed an accident. But this para has given intro of a Maths tutor. In second para I used activation prior knowledge to think about what is taught in Maths, formula, geometry, analysis, equation etc and how our teacher used to teach Maths in school and college. (Lines deleted). Safia used activation prior knowledge in first para. In second para Safia used imagination to think about the Maths tutor. That the tutor met the parents and left a good impression on them.
>
> (Extract 6.30, Translation from Nida's diary, 09.10.13)

On a different note, the Extracts 6.29 and 6.30 also reveal that Rida and Nida were metacognitively aware of the inter-individual differences in the use of strategies between them and their partner.

The finding that students used a variety of appropriate strategies to carry out the task indicated to me that they not only had started to orchestrate their strategy use but had begun to read like strategic and self-regulated readers, just as students in Cycle 1 (see Section 5.2.1.2). This finding prompted me to inform students that effective learners do not use strategies in isolation (Anderson 2008). Rather, they have a repertoire of strategies, from which they choose a cluster according to their specific goals (Griffith 2013). The finding also acted as a catalyst for me to help students enhance their self-monitoring and self-evaluative capacity. Since 'formal self-monitoring systems enable students with limited experience to self-observe, self-judge, and self-react to their learning in more expert fashion' (Zimmerman & Paulsen 1995: 21), I decided to introduce the RC (see Table 3.2, p. 76) in the next lesson on the strategies of skimming and scanning.

To conclude, the lessons on the strategy of identifying the main idea in this cycle made me realize that using the strategy of identifying the main idea is probably not

very easy for students in my context as students of both cycles initially found it difficult to grasp the main idea.

6.2.1.3 Skimming and scanning

Similar to Cycle 1, the next reading strategies I provided metacognitive strategy instruction on were skimming and scanning. I provided practice on these strategies in the classes held on the 22nd and 30th of October 2013. As per my decision in the lesson held on the 9th of October 2013 (see Section 6.2.1.2), in the lesson held on the 22nd of October 2013 I tried to familiarize students with the RC (see Table 3.2, p. 76). For this purpose, I asked them to discuss each question given in the checklist with another student. I also facilitated a whole class discussion on it. During discussion students inquired from me what is meant by 'nature of the task' and 'resources'. They also wondered how they could decide in advance how much time they would need to carry out the task. After the discussion on the checklist, I also facilitated a discussion on the 'what' of the strategies of skimming and scanning. Next, I asked students to fill in the SEM to discuss first in pairs and then through whole class discussion the procedural and conditional knowledge related to these strategies. This was followed by teacher modeling on the strategies of skimming and scanning. After teacher modeling, I provided students practice on the strategy of skimming. For this purpose I asked them to carry out activity 3b (see Figure 5.5, p. 163) of the text titled 'Gender Discrimination in the Work Place in Pakistan.' The task required students 'to skim read the text quite quickly and put the notes into the right order by writing numbers next to each one.' Unlike Cycle 1, I also asked students to use the RC to plan, monitor and evaluate their reading as per the demands of the assigned task. When students completed the planning section of the checklist I asked them what they had written in response to the question given in the checklist 'how much time and resources will I

need?' Some students informed me that they had written that they might take five minutes while others told me that they might take ten minutes.

On reflecting on the lessons I realized that the instructional steps I took to provide metacognitive reading strategy instruction on the text 'Gender Discrimination in the Work Place in Pakistan' in Cycle 2 were almost similar to that of Cycle 1. The only difference between the two was that in Cycle 2 I helped students evaluate their strategy use by means of the RC. Table 6.5 presents the instructional steps I took to provide metacognitive reading strategy instruction on skimming and scanning in both the cycles.

Table 6.5 Similarities in the instructional steps taken during metacognitive reading strategy instruction on the text 'Gender Discrimination in the Work Place in Pakistan' in Cycle 1 and Cycle 2

Components of Metacognitive Strategy Instruction		**Strategy Declarative Knowledge (What)**	**Strategy Significance (Why)**	**Strategy Procedural Knowledge (How)**	**Strategy Conditional Knowledge (Where & When)**	**Strategy Evaluation**	**Guided Practice**
Facilitated mainly by means of		Whole Class Discussion	Strategy Evaluation Matrix (SEM)	Teacher Modeling (TM) & Strategy Evaluation Matrix (SEM)	Strategy Evaluation Matrix (SEM)	Strategy Log (SL) & Regulatory Checklist (RC)	Activities
Order of steps I took during the lessons on 'Gender Discrimination in the Work Place in Pakistan' Main strategy taught: Skimming	**Cycle 1**	A	B	B	B	X	D
				C (TM)			
	Cycle 2	A	B	B	B	D (RC)	D
				C (TM)			

During the lesson, in contrast to students in Cycle 1, few students in Cycle 2 thought that they found the task of ordering the main idea (the notes) by skimming the text difficult. What some students found challenging was carrying out the task in five minutes. For instance, Marium in response to the question on the RC 'Have I reached my goal?' reported that due to the novelty of the task she could not achieve her goal in the assigned time:

> No I did not reach my goals in given time. I could not manage the time with my task that was the challenge for me and I am not habitual of doing this kind of tasks that's why I took more time to complete my task.
>
> (Extract 6.31, Marium's diary, 22.10.13)

The above extract also reveals that Marium's metacognitive experience of carrying out the task and metacognitive knowledge of self was emotionally charged as can be seen from the fact that she mentioned that time management was a 'challenge for me.'

Like Marium, Rida also reported that she could not complete the task in ten minutes. However, unlike Marium, she did not give any reason for it while responding to the following question on the RC:

> What did not work?
>
> In some of the paragraphs which is typical to skimming it takes more time as compare to I decided.
>
> (Extract 6.32, Rida's diary, 23.10.13)

I also found that one of the students did not understand the nature of the task. This can be seen in the responses she wrote to the following three questions of the RC in her diary:

> What is my goal?
>
> My goal is to read the chapter thoroughly to understand it and build my concept.
>
> What kind of information and strategies do I need?
>
> Many kind of strategies I can read this Gender Discrimination. 1st of all I read this title and use the prediction and activating prior knowledge. And in different para I used different strategies such as skaning, skamming, imagination.
>
> Am I reaching my goal?

> Yes I am reaching my goal. I read the text thoroughly and understood it and used all the strategies.

(Extract 6.33, Translation from Nida's diary, 24.10.13)

This extract reveals that Nida misunderstood the task since rather than skimming the text as per the task requirement (see Figure 5.5, p. 163), she read the text 'thoroughly' using 'all the strategies' she was aware of to 'understand it'. This could probably be because she lacked task familiarity and did not fully understand what is required to execute the task successfully.

Besides that, during the lesson some students thought filling in the SEM was a useful exercise. In this regard, while one of the students commented that it made him think deeply about how and when to use the strategies, another said that it made her more interested in using the strategies. Similar thoughts were later found in students diaries. For instance, Nida shared the pluses of thinking about the declarative (the 'what'), procedural (the 'how') and conditional (the 'when' and 'why') knowledge associated with the strategies:

> We thought about how, when and why to use strategies. This had a good impact on the use of the strategies. This help us in setting goal and we know what we are doing, why are we doing it, how to do it and what to do. This gives us an idea that what strategies we could use and when to use them. This increases our interest and does not let us get divert and this is how we achieve our goal.

(Extract 6.34, Translation from Nida's diary, 08.11.13)

Here, Nida reported that reflecting on the what, why and how of the strategies helped her set and achieve goals as it fostered her interest in reading and helped her remain focused. Thus, the metacognitive experience of carrying out the activity was filled with positive affect for Nida.

Moreover, I learnt during the lesson that most of the students found teacher modelling helpful. Later, all participating students listed the benefits of teacher modelling in their diaries in response to the feedback I requested from them on teacher modelling. For instance, Marium reported that teacher modeling not only provided procedural and conditional knowledge of strategies but also made the invisible reading process more concrete for her:

> By the help of her (the teacher) modelling I easily understood that how, when and why these strategies were used. When she was modelling I saw her mental process that how she used reading strategies. Now I understood that not all the strategies have to used but each strategy has a particular purpose and used at different points where needed.
>
> (Extract 6.35, Marium's diary, 08.11.13)

Here, it can be seen that teacher modelling also helped Marium realize that she did not need to use all strategies during reading, something that was not explicitly discussed in the lessons.

On the other hand, Rida noted that teacher modeling raised students' self-awareness regarding 'what they do actually' during reading:

> Teacher's modeling is very important because by this students are cleared what they do actually. Teacher's modeling is the step to demonstrate the students. For E.g:- Our English teacher gives us the demonstration by reading a text in which she apply different strategies and we have to note down that strategies which she used while reading the text.
>
> (Extract 6.36, Rida's diary, 08.11.13)

As noticeable from the previous extracts, the participating students' views on the SEM and teacher modeling were positive in this cycle as well. But perhaps it was in

the spirit of reflexivity that during the lessons I remained concerned whether my students truly benefitted from these and other instructional practices. Troubled by this concern, just as in Cycle 1, I informed students during the lessons that I want their honest feedback on the lessons as that could help me shape the future lessons. I also asked students to reflect deeply why they liked or disliked whatever they did during the lessons.

In the lesson held on the 30th of October 2013 I facilitated another activity on ordering the main idea by skimming the text (see Activity 3, Figure 5.6, p. 165) on the text titled 'Will Climate Change Lead to Conflict or Cooperation?' since in the previous lesson one of the students did not understand the nature of the task (see Extract 6.33). Before students started the assigned task I asked them to use the RC (see Table 3.2, p. 76) to plan their reading, just as I did in Cycle 1. I also told them that they would make a diary entry to discuss how they used the RC. In addition, unlike Cycle 1 I asked students to fill in the SL for the strategy of skimming once they had completed the task. I learnt during the pair discussion on the task that most of the students were able to put the notes in the right order. Students also evaluated their use of the strategy in their SL. For instance, Sarah thought that using the strategy of skimming had been 'useful' since it provided her 'the overview' of the text as is noticeable from the following extract:

> This (skimming) strategy is really useful for me and I get the overview of the climate change or about the authors view after and while reading this strategy.
>
> (Extract 6.37, Sarah's diary, 04.11.13)

The extract also indicates that the metacognitive experience of carrying out the skimming activity was filled with positive affect for Sarah as she found it 'useful'.

Thus, it appears that Sarah's metacognitive experience of carrying out the activity had both the cognitive and affective character.

Marium too thought that overviewing the text was helpful as it facilitated text prediction and led her to formulate questions during reading (see Extract 6.58). It appears from Extracts 6.37 and 6.58 that the SL helped students critically evaluate how the strategy shaped their reading of the assigned text.

It appears from students' responses to the questions on the RC that this time most of the students were able to complete the task within three to ten minutes. Some students also reported that the reason for their successful completion of the task within the time they assigned for its completion was familiarity with the task. For instance, Marium who earlier could not complete the task in five minutes (see Extract 6.31), reported that she managed the task within three minutes as can be seen in the response she wrote to the following two questions of the RC in her diary:

> Have I reached my goal?
>
> Yes I reached my goal within 3 minutes through skimming.
>
> What worked?
>
> Skimming worked for me because in the 4th diary entery I also used this strategy I know the way to use it.

(Extract 6.38, Marium's diary, 30.10.13)

Similarly, as compared to before (see Extract 6.32), Rida reached her goal within ten minutes as reported by her in response to the following questions in her diary:

> How much time and resources will I need?

I need pencil, book as a resource and 10 minutes as a time.

Have I reached my goal?

Yes, I have easily reached my goal because of the strategy 'skimming'.

What worked?

Yes, the strategy worked and I'll complete it within the time which I decided.

(Extract 6.39, Rida's diary, 31.10.13)

I also found that Nida who earlier did not understand the nature of the task (see Extract 6.33) performed it correctly this time by reading 'briefly' and not using 'a lot of strategies' as noticeable from responses she wrote to the following three questions of the RC in her diary:

What is my goal?

My goal is that I have to arrange the given questions (notes) on reading the text.

What worked?

Just used two strategies and read briefly and reached my aim.

What did not work?

I did not use a lot of strategies in it such as prediction or activating prior knowledge.

(Extract 6.40, Translation from Nida's diary, 31.10.13)

Besides that, I learnt during the lesson that some students liked using the RC as it helped them to plan their reading. Later, during the interview one of the students brought to my notice that by using the checklist she learnt to 'make goal' and 'plan the time needed' to carry out the task, a useful skill 'required' to perform tasks 'in future' as well she thought:

> I learnt to make goal. That first of all you make your goal that what do you want to do. And plan the time needed so that you could assess if you have taken more time. Because whatever we will do in future we would be required to complete the task in the given time.
>
> (Extract 6.41, Translation from Rida's Interview, 13.11.13)

Just as in Cycle 1, I provided students with further practice in skimming and scanning on the text titled 'States Facing Extreme Risks from Climate Change' in the lessons held on the 4th and 5th of November 2013. However, unlike Cycle 1, I asked students to carry out a collaborative think aloud on it to help them 'see' the use of reading strategies by them and their partners. Readers may recall that students of this cycle did not perform a collaborative think aloud so far in the study. To help students perform a collaborative think aloud I gave them the same instructions that I gave to students in Cycle 1 on the 25th of March 2013 (for details see Section 5.2.1.1) since I followed the same procedure. At the end of the think aloud, I elicited from students the strategies they and their peers mostly used to comprehend the text. I learnt that they mostly used the strategies of 'rereading, scanning, prediction, skimming, activating prior knowledge and identifying the main idea' (Extract from teacher-researcher's journal, 01.11.13). I noticed during the lesson that almost all the students liked performing the collaborative think aloud. In fact, some students shared with me that they would like to perform it once again. I therefore provided them another opportunity to perform a collaborative think aloud on the text 'Enriching Knowledge' on the 13th of November 2013.

The data shows that two of the participating students who had good and average reading ability, Marium and Rida respectively, mentioned in their diary that the collaborative think aloud raised their awareness of the strategies used by them and

their partner. Describing what she and her partner did during the think aloud Marium wrote:

> When Rabab was doing think aloud she told everything whatever comes to her mind. In this way I guessed the strategies that she used in doing think aloud. It was also a learning process. In my turn rabab guessed my strategies that I used in doing think aloud. I really enjoyed that task because when she was doing think aloud I understand that when, how and why she used reading strategies and how I used these strategies.
>
> (Extract 6.42, Marium's diary, 08.11.13)

From the previous extract it can also be seen that Marium enjoyed performing the collaborative think aloud task as it was a 'learning process' for her.

Overall, it appeared from the lessons on the strategies of skimming and scanning that providing students with opportunities to first reflect individually on their use of strategies by means of tools such as the SL and the RC, made easier for them the on-line demonstration of the use of strategies in front of other students by means of collaborative think aloud.

6.2.2 Promoting students' metacognition by using research tools as pedagogic tools

Just as in Cycle 1, in Cycle 2 I used learners' diaries for promoting metacognition of reading strategies in students during the intervention stage of the study. Specifically, I asked students to reflect on the lessons and note down the strategies they and other students used during reading various texts in their diary. I also asked students to reflect on their use and regulation of strategies introduced during the lessons in it. Readers may refer to Sections 6.2.1.2 and 6.2.1.3 to read some of the extracts from the diaries that students wrote on these lessons. Just as in Cycle 1, I also provided

students with an opportunity to read each other's diaries. Moreover, unlike Cycle 1, I also asked students to give written feedback on each other's diary entries by specifying what they liked about them and how they could possibly improve them towards the end of the study. During the study I collected diaries from students after every two weeks to give written feedback on them.

As expected, initially most of the students found diary writing to be a very difficult task. I also found that it took some students several weeks to figure out how to write diary entries. This is, for instance, reported by Nida thus:

> In the beginning it was very difficult to write. In first and second week, almost a month it was difficult to understand how to write, after that improvement came about.
>
> (Extract, 6.43, Translation from Nida's interview, 13.11.13)

However, Nida also reported that she liked writing diary since it gave her an opportunity to reflect on the lessons, on her weaknesses and the problems she faced during reading and share them with the teacher:

> Researcher: What do you think about diary writing?
>
> Nida: Diary entry? I had never written diary before but when I did it this time I really liked it.
>
> Researcher: What did you like about it?
>
> Nida: What you taught us we used to write about it. It was like a personal diary for us. We used to write our point of view, our problems and how can we overcome them, what weaknesses we have and how can we overcome them, we discussed all this in it. We used to share everything in it which you used to read.
>
> (Extract 6.44, Translation from Nida's interview, 13.11.13)

I also found that some students, including all four participating students, considered diary sharing and commenting on other students' diaries useful and/or enjoyable as it

provided them with an opportunity to access the thinking and the strategies other students employed during reading. This is, for instance, reported by Rida in her diary thus:

> When we do diary sharing in class this is very useful because we know other thinking, other way of writing, the things which they used or we don't. It is also very enjoyable. We give comments on each other diary. By sharing the diary we know useful points of reading and about reading strategies.
>
> (Extract 6.45, Rida's diary, 08.11.13)

Here, it can be seen that reading other students' diaries raised Rida's awareness of the inter-individual difference in the use of strategies by her and other students.

Likewise, Nida thought that she learnt about other students' thinking and use of strategies through diary sharing:

> I liked sharing diary. Through this we learnt about each other's point of view (Lines deleted). And what strategies they had used at different places.
>
> (Extract 6.46, Translation from Nida's diary, 13.11.13)

Overall, these findings indicate that research tools could function as awareness raising tools for students.

6.2.3 Promoting students' metacognition by fostering their interest in reading

As stated in Section 6.1.6, some students' interest in reading developed when I used the research tools, SORS questionnaire and interviews, as pedagogic tools. The data indicates that students' interest in reading continued to grow during the intervention stage of the study. This mainly appeared to be the result of the motivation-supporting practices I engaged in to influence students' interest in reading positively. Most of the

practices I employed were similar to that I employed in Cycle 1. However, there were a few that I employed only in Cycle 2. For instance, I tried to boost students' reading self-efficacy during metacognitive reading strategy instruction (for details see Section 6.1.6). At the end of the study some participating students reported having increased self-confidence and better self-image as compared to before. In this regard, for instance, Sarah reported:

> Now I think that yes I can learn, I can do it. Previously I used to think that I could not do it. My brother used to say that you can't do it; you cannot learn English at all. I used to think okay I cannot learn it.
>
> (Extract 6.47, Translation from Sarah's interview, 13.11.13)

The above extract reveals that Sarah, who earlier used to think that she could not learn English, started thinking 'I can learn'. This is in keeping with the literature that indicates that providing students with cognitive tools to help them read better increase students' self-efficacy in reading (e.g. Bandura 1997).

Moreover, in this cycle I attempted to make students realize that success in reading is the result of effort and not luck (see Section 6.2.1.1) since Pressley and Gaskins (2006: 105) note that 'encouraging students to attribute successes to effort and failures to lack of effort has powerful motivational implications'. The brief discussion I facilitated on this issue stimulated students' thinking as they started thinking about their own stance on this issue as noticeable from the following extract:

> I think success in reading is due to effort. Because in this success one doesn't want luck because reading is a hardworking process and daily basis process because if one does not read regularly and carefully and don't know the strategies he/she used, they don't get success. So I think success in reading is due to effort and not because of luck.
>
> (Extract 6.48, Rida's diary, 08.11.13)

Here, it can be seen that Rida thought that regular and careful reading and the use of strategies leads to success.

In Cycle 2, one of the things I did similar to Cycle 1 was that I facilitated peer collaboration by means of pair and group work during the lessons (see Sections 6.2.1.1, 6.2.1.2 and 6.2.1.3). The data indicates that all participating students of this cycle found it useful to work in pairs and groups, just like participating students of Cycle 1. For instance, Marium reported that by means of peer collaboration students got an opportunity to share the 'views and information' with another student when they actively 'corrected' each other's understanding:

> Our teacher gave us a task (any task) and took time to us to discuss it with a partner sitting next to us. In this way me and my partner helped to each other when I was wrong she/he corrected me and when she/he was wrong I corrected because sometime I better understand the task or sometime not. This helped us in sharing our views and information.
>
> (Extract 6.49, Marium's diary, 08.11.13)

Along similar lines Nida reported that the pair and group work helped students understand 'each other's views' and also made them aware of 'each other's thinking while using different strategies':

> In class we worked in pairs and groups and we liked it a lot. We did it the first time but we liked it a lot. This way we got an opportunity to work with each other and we learnt about each other's views. And we learnt about each other's thinking while using different strategies. And we developed understanding.
>
> (Extract 6.50, Translation from Nida's diary, 06.11.13)

From the previous extracts, it can be seen that the students found working in pairs and groups useful. It may therefore be that peer collaboration had positively impacted on

students' motivation level since Marium thought that it has 'advantages' and Nida 'liked it a lot'. Besides that, sharing views and information with others could have been motivating for students since the literature points out that 'students' intrinsic motivation and efficacy during their work with complex comprehension strategies are increased when they have opportunities to share their questions, interesting texts, and new information' (Wigfield et al. 2004: 304).

Just as in Cycle 1, what seem to have developed some students' interest in reading was that they began to consider focusing on reading strategies during the lessons valuable. In more detail, some students thought that focusing on reading strategies could improve their reading skills. It can be illustrated from the following extract that one of the students wrote at the end of the lesson on the strategy of identifying the main idea:

> *In this class we know how to pick the main idea. It's a good way for improving reading skills.*
>
> (Extract 6.51, Anonymous exit slip, 27.09.13)

Besides that, it appeared that some students thought that the reading strategies could help them in reading books or texts. This can be illustrated from the following extracts that students wrote at the end of the lessons on the strategies of predicting and activating prior knowledge:

> *In class we discuss about strategies of reading, which give lesson to us that during the reading what strategies we can use. It can help us in various reading books. We learn different strategies day by day and they are really very interesting and useful while, after, before reading.*
>
> (Extract 6.52, Anonymous exit slip, 11.09.13)

Today I have good feeling because I learn new thing, trick to read any text.

(Extract 6.53, Anonymous exit slip, 17.09.13)

As is evident from the extracts above, the students who wrote these comments were of the opinion that the strategies could help them understand the content they were reading. This is noticeable from the fact that whilst the first student explicitly wrote that the reading strategies 'can help us in various reading books', the second student regarded reading strategy to be a 'trick' that could help him/her to 'read any text.' Besides that, the second extract reveals that the student who wrote it had a 'good feeling' about learning a strategy that could help in reading 'any text'. This suggests that perhaps learning a 'new' strategy improved students' reading self-efficacy. This may be the case since the literature points out that students' self-efficacy for reading is enhanced when they learn reading strategies (Schunk & Pajares 2002).

6.3 Change in students' awareness and use of the reading strategies

The previous section presented the findings from the lessons I facilitated to promote metacognition of reading strategies in students in Cycle 2. The findings in this section reflect the changes that occurred in the participating students' awareness and/or use of the reading strategies during the intervention stage of Cycle 2. These findings are derived from the analysis of the full range of data sets.

6.3.1 Increased students' awareness of the reading strategies they already used

Similar to Cycle 1, I found that three participating students who at the start of the study were unaware of the strategies that were already in their repertoire of use reported that they became more attuned to them within two months into the intervention stage. This was reported by the participating students both in the second

and third interview that I carried out during the study. For instance, Nida reported in the third interview that she had employed the strategies of prediction and activating prior knowledge as illustrated from the following extract:

> Researcher: Were you aware of the strategies such as prediction, activating prior knowledge that we studied in the classes?
>
> Nida: No maam. I mean a little (...) Out of these I used to use some. But I was not aware why I was using them, sometimes I used them sometimes I did not. And I was not aware of why I was using them. And I was not aware of what I was doing.
>
> Researcher: Alright. So which strategies were you aware of prior to the start of the semester?
>
> Nida: I knew that by looking at the title I used to guess what is in the text, used to activate prior knowledge. I used to do these but I did not know if I should do this or not.
>
> (Extract 6.54, Translation from Nida's interview, 13.11.13)

From the above extract it is evident that Nida realized that she lacked both the declarative and conditional knowledge of strategies of prediction and activating prior knowledge as she reported that she did not know 'what I was doing' and 'why I was using' the strategies. It seems that her lack of metacognitive knowledge of strategies made her uncertain if she should use the strategies during reading. Perhaps that's why she used the strategies 'sometimes'.

Like Furqan in Cycle 1, Sarah reported that she did not know that what she had been using are reading strategies (see Section 5.3.1). Moreover, like Ali in Cycle 1 she reported that she 'might have been using them' prior to the start of the study (see Section 5.3.1):

> Researcher: Are you saying you did not know these strategies before?

> Sarah: No. I might have been using them but I did not know that these are strategy. I mean nobody told us.
>
> Researcher: Okay. Did you use any of these strategies before?
>
> Sarah: Re-reading, guessing, also activating prior knowledge.
>
> (Extract 6.55, Translation from Sarah's interview, 13.11.13)

Students' heightened awareness of the range of strategies that were part of their repertoire indicates that, just like students in Cycle 1, they became metacognitively aware of the strategies they had used during the intervention stage of the study.

6.3.2 Change in students' awareness and use of the reading strategies that were practiced during the lessons

Similarly to Cycle 1, in Cycle 2 all participating students became metacognitively aware of the strategies that were introduced to and practiced during the study. They also used the strategies introduced during the lessons. In this section I organize this finding drawing on the full range of data sets.

6.3.2.1 Interviews and learners' diaries

The data from interviews and learners' diaries indicates that students developed declarative knowledge, procedural knowledge and conditional knowledge of the strategies introduced to them during the study. Moreover, they brought the strategies introduced to use during their reading. In more detail, like Cycle 1, all four participating students' reported gaining declarative knowledge of the introduced strategies during the intervention stage of the study. For instance, Sarah reported at the end of the study that she became aware of several strategies during the study:

> Initially I did not know that any strategy is used during reading. I did not know any such thing. But then I learnt

> gradually about strategies. First I learnt about pre-reading strategies like activating prior knowledge, prediction. Then I learnt how they will be used. I learnt about skimming, then scanning.
>
> (Extract 6.56, Translation from Sarah's Interview, 13.11.13)

This extract above indicates that Sarah had no declarative knowledge of the strategies of 'activating prior knowledge', 'prediction', 'skimming' and 'scanning at the start of the study. However, it appears that she gradually 'learnt about' the introduced strategies. In addition, she also 'learnt how they will be used'.

Likewise, Rida reported during the interview that she learnt about the strategies during the lessons:

> Reading strategies we did not know at all. That you use them during reading. We learnt about them due to these classes.
>
> (Extract 6.57, Rida's Interview, 13.11.13)

Students' heightened awareness of declarative knowledge about strategies signaled to me that like Cycle 1, Cycle 2 achieved its aim of helping students gain declarative knowledge of the strategies.

Besides that, the data reveals that unlike students in Cycle 1 all four participating students' in Cycle 2 gained conditional knowledge of the strategies introduced during the intervention stage of the study. For instance, Marium who had good reading ability reported in her diary 'why' in her opinion the strategy of skimming is helpful. She also reported that using the strategy of skimming led her using other reading strategies such as prediction and formulating questions during reading as well:

> Skimming helped me it gave me an overview about the text and I predicted about the text more and

> formulate questions. I formulated questions from my opinion after skimming the text that I wanted to answer the text.
>
> (Extract 6.58, Marium's diary, 30.10.13)

Along similar lines, Rida who had average reading ability reported 'why' the strategy of activating prior knowledge is used during reading:

> We use it (activating prior knowledge) to relate what we're reading to something we know. When we use this strategy, we have the background knowledge which is very useful for better understanding the things. We relate the written word to our previous experiences to make reading more intresting, helpful, use to understand and remember what we read.
>
> (Extract 6.59, Rida's diary, 11.09.13)

The data shows that in addition to developing metacognitive knowledge of the introduced reading strategies, all four participating students also became aware of the knowledge they gained about strategies during the study. At the end of the study Marium reported that as compared to before she has gained knowledge of reading and the reading strategies:

> Now I know what is reading. I did not know before what is reading. And it was beyond possibility that I would know of reading strategies. Now I know reading strategies and also how to use them.
>
> (Extract 6.60, Translation from Marium's Interview, 13.11.13)

Sarah and Rida also reported that they gained knowledge of strategies during the course, as can be seen from Extracts 6.56 and 6.57. This finding indicates that, just like students in Cycle 1, students in Cycle 2 began to develop metacognitive knowledge of the two components identified by the literature, namely knowledge about cognition and awareness of one's own cognition (Harris et al. 2010).

I also found that unlike Cycle 1, all four participating students in Cycle 2 started using the strategies effectively on the texts read during the study. For instance, Marium who had good reading ability employed the entire range of strategies well during reading. The following excerpt illustrates her effective use of the skimming strategy while reading the text 'Will Climate Change Lead to Conflict or Cooperation?':

> I used skimming strategy in that text. Skimming is the strategy which gives an overview about the text or anything else. I used this strategy by reading first and last paragraph in full and first sentence of the remaining paragraph.
>
> (Extract 6.61, Marium's diary, 30.10.13)

Like Marium, Nida used all the strategies taught well during reading. An instance of her effective use of the strategies of prediction and identifying the main idea on the text 'Enriching Knowledge' is evident from the following extract:

> First of all I made prediction on reading the title of the text. I predicted that it would be about education or knowledge or information. And used my previous knowledge related to education. And took out the main idea from first line of first paragraph that it is talking about literature.
>
> (Extract 6.62, Nida's diary, 31.10.13)

The finding that all participating students in Cycle 2 applied strategies well during reading suggested that they gained comprehensive procedural knowledge of the strategies in this cycle unlike the students in Cycle 1.

6.3.2.2 Think aloud protocols

Just as in Cycle 1, I found further confirmation of the changes in students' awareness and use of reading strategies during TAPs (for details regarding the text used in TAPs

in Cycle 2 see Section 4.2.3). The data reveals that all four participating students made predictions in the second and third think aloud, although none of them used the strategy of prediction during the first think aloud (see Section 6.1.2). In more detail, in the second and third think aloud students made prediction about the text by reading its title. For instance, in the second think aloud after reading the title of the text Rida predicted that the text would discuss the problems of the education system of Pakistan:

> On reading its title 'Pakistan education emergency: failing its future' I could see that it might be about education system of Pakistan, that it has a few flaws and in future it could fail.
>
> (Extract 6.63, Translation from Rida's TAP, 09.10.13)

Similarly, Sarah predicted at the start of the third think aloud that the text would discuss the semester system followed by Pakistani universities:

> **The debate about the semester system.** I have made this prediction that it might discuss about the semester system followed by the universities, whether it should be changed into an annual system or not. Or it might talk about the problems of the semester system.
>
> (Extract 6.64, Translation from Sarah's TAP, 13.11.13)

Also, the data shows that during the third think aloud two participating students predicted what the paragraph would discuss next on the basis of the text they were reading. For instance, Marium while reading the text 'The Debate about the Semester System' tried to predict the opinions of those who favour the semester system:

> **It is claimed that teachers are subjective in their approach and go by personal whims by teaching and awarding mix to the students. On the other hand the supporters of the semester system have**

> **their own opinions.** What are their opinions? They favour the, might they favour the semester system because they used this system.
>
> (Extract 6.65, Translation from Marium's TAP, 09.10.13)

The use of the strategy of prediction by all four participating students indicates a clearly identifiable change in students' procedural knowledge of this strategy within a month of the start of the study. Readers may recall that students neither used this strategy in the first think aloud (see Section 6.1.2) nor made predictions on the text 'Neelum Valley: A Gem to Treasure' (see Section 6.2.1.1).

The data from TAPs also reveals that all four participating students activated their prior knowledge during the second and third think aloud, just as they did in the first think aloud. However, unlike the first think aloud, in these think alouds students were aware that they had used the strategy of activating prior knowledge during reading. The following example from Nida illustrates how she reported her use of the strategy of activating prior knowledge when elicited about her reading process during the third think aloud:

> Researcher: What did you do to understand the second paragraph?
>
> Nida: (Lines deleted). I have activated my prior knowledge as we are experiencing semester system in the university and have experienced annual system in intermediate.
>
> (Extract 6.66, Translation from Nida's TAP, 13.11.13)

Besides that, the data shows that two of the participating students, Rida and Nida respectively, identified the main idea of two paragraphs during the third TAP. An instance of Rida's use of the strategy of identifying the main idea is evident from the following extract:

> **Quizzes, assignments and presentations keep the students on their toes. All these activities develop confidence in the students. Prompt feedback by the teachers makes learning an active activity. The focus in the semester system is on learning and developing skills rather than preparation for examination. There is very little room for cramming in semester system.** The main idea of this paragraph is developing skills of the students by the teachers.
>
> (Extract 6.67, Translation from Rida's TAP, 13.11.13)

The finding that in addition to the strategy of prediction, Rida and Nida started using the strategy of identifying the main idea by the end of the study indicates a significant growth in their procedural knowledge and the use of top-down strategies since at the start of the study they only used one top-down strategy during TAP (see Section 6.1.2).

6.3.2.3 Teacher observation

I found during the lessons I facilitated on the strategies of identifying the main idea and skimming that the students who reported increased awareness and use of the reading strategies also demonstrated this change in the task they performed in the classroom. For instance, I observed that students used various strategies to carry out the task of main idea extraction on the text 'A Painful Memory?'. Readers may refer to Section 6.2.1.2 for details of the strategies used by the students during this lesson.

6.3.2.4 Questionnaire: Survey of Reading Strategies (SORS)

Similar to Cycle 1, the SORS questionnaire provided me with further evidence of students' awareness and use of the strategies of prediction, activating prior knowledge and skimming. I collected this evidence by means of comparison between the SORS questionnaire that students filled in at the start of the study and on the last day of the

study. Specifically, as shown in the Table 6.6 below, like Cycle 1 more students started using the strategies of prediction, activating prior knowledge and skimming by the end of the study.

Table 6.6 Comparison of the number of students in Cycle 2 who used the strategies before the start of the study and at the end of the intervention (n=26)

Strategies	No of students									
	Never or almost never		Occasionally		Sometimes		Usually		Always or almost always	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
I think about what I know to help me understand what I read (Activating prior knowledge)	3	0	4	1	4	7	13	9	2	9
I take an overall view of the text to see what it is about before reading it (Skimming)	4	0	5	2	2	2	4	12	11	10
I try to guess what the content of the text is about when I read (Prediction)	7	0	2	4	5	4	9	8	3	10

As Table 6.6 shows, the number of students who reported that they 'always or almost always' used the strategies of prediction and activating prior knowledge increased by the end of the study. In comparison, the number of students who 'always or almost always' used the strategy of skimming is reduced by 1 number. However, what is noteworthy is that a large number of students reported that they 'usually' used the strategy of skimming by the end of the study as compared to the start of the study.

Increase in students' use of the strategies by the end of the study is also evident from the fact that the number of students who 'never or almost never' used the strategies of activating prior knowledge, skimming and prediction decreased to zero in all three cases.

6.4 Students' regulation of reading

Section 6.3 presented the findings related to students' awareness and use of the reading strategies during the lessons. This section presents findings related to students' regulation of reading during the intervention stage of Cycle 2. It therefore discusses the activities students appeared to engage in during the study to regulate their reading, namely, planning, monitoring and evaluation. Moreover, it highlights the strategies students used to plan, monitor and evaluate their reading.

6.4.1 Planning

Like Cycle 1, students in Cycle 2 mostly selected and employed the strategies that helped them plan their reading before reading a text. For instance, they employed the strategies of prediction, activating prior knowledge, skimming and/or scanning before reading different texts (see Sections 6.3.2.1, 6.3.2.2 and 6.3.2.3). Besides that, the participating students started planning their reading well with respect to their goals using the RC (see Table 3.2, p. 76). For instance, Marium effectively planned her reading before reading the text 'Will Climate Change Lead to Conflict or Cooperation?' as is evident from the following extract:

> What is the nature of the task?
>
> It is the skimming task.
>
> What is my goal?

To match the summary sentences given in the activity with the text by skimming.

How much time and resources will I need?

I will need my mind and pencil. Perhaps I will complete this task within 3 to 4 minutes.

(Extract 6.68, Marium's diary, 30.10.13)

Here, it appears that Marium mindfully planned the goal she wished to achieve and the time and resources she needed to do so. It also appears that she understood the nature of the task that perhaps helped her plan her goal.

Like Marium, it appeared that Sarah effectively engaged in planning her goals before reading:

What is the nature of the task?

The nature of the task is to skim the text and match or arrange the headings with the given information.

What is my goal?

My goal is to match the heading and some spasific things by reading and skimming the text.

How much time and resources will I need?

We use the skimming strategies of approximately with in 5 to 7 minutes so I have to complete skimming with in the specific time with use the computer dictionary and pancils.

(Extract 6.69, Sarah's diary, 04.11.13)

The above extract reveals that Sarah like Marium understood the task as she noted that she needed '5 to 7 minutes' to complete the task she undertook. However, she noted that she might need to use the 'computer dictionary'. This could be because the task required the use of the strategy of identifying the main idea for ordering the given summary statements. Also, because she was aware of her reading ability (she scored

Grade E, as mentioned before), she might have thought that she would need to find out the meaning of the key words during carrying out the task if needed.

Besides that, I also found that all participating students considered planning to be useful for reading just as students in Cycle 1. For instance, Sarah reported benefiting from keeping in mind the 'resources' and 'strategies' that was required for carrying out the task:

> I did not do planning before this. It has benefitted us in this way that before we started a text or work we planned it. And kept in mind the resources we need for it. And we planned the strategies that we used in it.
>
> (Extract 6.70, Translation from Sarah's interview, 13.11.13)

Similarly, Nida who started planning how to approach the text keeping in view the task demand as discussed in Section 6.2.1.3, stressed at the end of intervention stage that asking questions that helped her plan her reading was 'beneficial' as illustrated from the following extract:

> When we read a text we first think what is our goal? What should we do? Why should we do it? How to do it? What work we need to do? Which strategy we need to use and when? If we would think of all this it would be more beneficial and this raise awareness too.
>
> (Extract 6.71, Translation from Nida's interview, 13.11.13)

The foregoing findings indicate that, like participating students in Cycle 1, participating students in Cycle 2 had the awareness of the strategy of planning.

6.4.2 Monitoring

Just as in Cycle 1, the participating students regulated their reading in part by monitoring activities. This is most apparent from the metacognitive experiences

students reported having during the study (for discussion on 'metacognitive experiences' see Section 3.2.4.2). For instance, students reported that they became cognizant of the reading strategies they used prior to the start of the study (see Section 6.3.1).

Similar to Cycle 1, I also found that all four participating students not only reported the metacognitive experiences they had during reading, but also reported consciously monitoring their comprehension during the intervention stage. For instance, Marium and Rida while carrying out activity 3b of the text titled 'Gender Discrimination in the Work Place in Pakistan' (see Figure 5.5, p. 163) monitored their comprehension and thought it was not going along well since they did not reach their goal in the assigned time (see Section 6.2.1.3). This resonated with the literature that indicates that monitoring 'helps students discriminate between effective and ineffective performance' (Zimmerman & Paulsen 1995: 15).

Besides that, some students reported making changes in their use of strategies while carrying out different tasks as they realized that their use of strategies were not permitting progress with respect to the goal in view. This awareness led students to direct their processing so as to achieve their goal. In this regard, for instance, Marium reported that in order to 'achieve my goal' she employed other strategies such as 'reread' along with skimming during performing activity 3b (see Section 5.2.1.3 and Figure 5.5, p. 163) on the text 'Gender Discrimination in the Work Place in Pakistan':

> I need to make changes because skimming strategy is not enough for me to achieve my goal that's why I also have to use any other strategy such as reread those paragraphs in which skimming is not done easily.
>
> (Extract 6.72, Marium's diary, 22.10.13)

Along similar lines, Nida reported using fewer strategies while carrying out a task on the text 'Will Climate Change Lead to Conflict or Cooperation?' as noticeable from Extract 6.40. This extract reveals that Nida monitored her performance of the task as she realized that she did not need the strategies of 'prediction and activating prior knowledge'. Readers may recall that she earlier used the above mentioned strategies while carrying out a similar task on the text 'Gender Discrimination in the Work Place in Pakistan' (for details see Section 6.2.1.3).

To conclude, the fact that the participating students in Cycle 2 showed evidence of monitoring their comprehension during the intervention stage suggested that they began to become metacognitive readers like students in Cycle 1.

6.4.3 Evaluation

All participating students started to evaluate how effectively or ineffectively they performed the assigned tasks. An instance of this could be seen in Extract 6.31 that indicates that Marium not only evaluated her performance during the task as she reported that 'I did not reach my goals in given time' but also realized that the reason behind it was the newness of the task.

Like Marium, Rida too judged whether she carried out the assigned task effectively or not. The following extract typifies her use of the strategy of evaluation during the intervention stage of the study:

> I reached my goal because of skimming and scanning. Yes it is worked because my goal was completed within the time I decided. I don't need to make any changes and I don't do this type of activity differently next time because to match the summaries in a given time the best strategy that one could use is skimming and scanning.

(Extract 6.73, Rida's diary, 13.11.13)

The previous extract reveals that Rida judged that the strategies of 'skimming and scanning' were appropriate for carrying out the assigned task as they helped her reach her goal 'within the time' she decided.

Besides that, just as in Cycle 1, two out of the four participating students evaluated the text content during the third TAPs. For instance, Marium's disagreed with the text content as noticeable from the following extract:

> **On the other hand, some critics say that semester system is too easy because the syllabus is short and student do not have to cover a lengthy syllabus.** No. I not agree with this point.

(Extract 6.74, Marium's TAP, 13.11.13)

Here, Marium's dissonance with the content suggests that she was actively evaluating the text during reading.

Taken as a whole, it appears that the participating students began to regulate their use of reading strategies during the intervention stage of the study.

6.5 Reflections on the second cycle

In this Cycle I further realized that promoting metacognition of reading strategies is very context specific. I therefore needed to constantly reflect on the students' needs and views to teach in a context-appropriate and sensitive manner. This signaled to me that a teacher of metacognitive reading strategy instruction needs to be open-minded and flexible in the techniques he/she use to achieve the desired goal. Moreover, I realized that within the constraints of the prescribed textbook, teachers could be proactive in providing metacognitive reading strategies instruction for developing

reading skills of students and their professionalism as an English teacher. Besides that, in this Cycle I realized that the power of AR is its flexibility as a research methodology as it could be adapted to my context and my teaching style.

Chapter Seven

Discussion

This AR study set out to investigate the process of promotion of metacognition of reading strategies in ESL university level students. It also aimed to illuminate the outcome of the process on students' awareness, use and regulation of reading strategies. To guide this investigation the following research questions were formulated:

1. How can metacognition of reading strategies be promoted in university level ESL students in Pakistan?

2. What changes, if any, does metacognitive instruction have on students' awareness of the reading strategies introduced during the study?

3. What changes, if any, does metacognitive instruction have on students' use of the reading strategies introduced during the study?

4. What changes, if any, does metacognitive instruction have on students' regulation of the reading strategies introduced during the study?

For the purpose of the study, I facilitated two cycles of AR, of four months each, with two separate groups of first year students of the faculty of science who were studying Compulsory English Course. During Cycle 1, I provided metacognitive reading strategy instruction to the first group of students and engaged in systematic reflection on the lessons. In the light of my reflections and developing understanding of the process of metacognitive reading strategy instruction, I undertook Cycle 2 with the second group of students. In the preceding chapters, I described the lessons I

undertook in Cycle 1 and Cycle 2 to facilitate the process of promotion of metacognition of reading strategies. I also presented the findings related to changes in the awareness, strategy use and regulation of reading strategies in participating students from both groups. This chapter examines my findings within the context of current literature on metacognitive reading strategy instruction and sets out the contribution it makes to the field. It begins by discussing the findings related to the promotion of metacognition of reading strategies in ESL university level students, in keeping with the first research question. Next, it considers where the findings are situated within the literature that examines the impact of metacognitive reading strategy instruction on students' awareness and use of reading strategies to respond to the second and third research questions. Following this, in relation to previous studies it discusses the impact of metacognitive reading strategy instruction on students' regulation of reading strategies to answer the fourth research question.

7.1 Promoting metacognition of reading strategies

In this section, to respond to my first research question I bring together the findings regarding the process I undertook to provide metacognitive reading strategy instruction in Cycle 1 and Cycle 2 from Chapters Five and Six to establish the instructional practices that formed the basis for the lessons in my study. However, given the qualitative AR design of the study, in this section I do not draw any conclusions with regard to which instructional practice was particularly effective in promoting metacognitive awareness, use and regulation of reading strategies in students. Rather, I discuss the instructional practices I employed during the study. These instructional practices were providing explicit instruction, creating opportunities for student collaborative discussions about strategy use, and creating students' interest in reading.

7.1.1 Providing explicit instruction

The research indicates that explicit instruction enhances students' strategic and metacognitive awareness (e.g. Duffy et al. 1987; Dole et al. 1996). In the current study, I provided explicit instruction to foster metacognitive knowledge and metacognitive regulation in my students. The main features of explicit instruction I utilized during the study included discussion of the declarative, procedural and conditional knowledge associated with the strategies; teacher modelling or think alouds; and guided and independent practice.

As discussed in Section 3.2.7, the researchers (e.g. Paris et al. 1983; Duffy et al. 1987; Garner 1987; Carrell 1998b; Winograd & Hare 1988; Paris & Winograd 1990; Gunning 2002) emphasize that teachers should offer explanation of the declarative, procedural and conditional knowledge associated with using the strategies during metacognitive reading strategy instruction. Providing teacher explanation is considered essential since it produces awareness of reading strategies in students (Duffy et al. 1983; Roehler & Duffy 1984). However, in this study I did not provide direct explanation to students about how, when, where to use strategies. Rather, I provided students with opportunities to actively construct this metacognitive knowledge associated with using the strategies. To stimulate and to guide their discovery of metacognitive knowledge, I used an instructional aid called the SEM (see Table 3.1, p. 76). As discussed in Section 3.2.7, the SEM was developed by Schraw (1998) with the aim of scaffolding development of metacognitive knowledge in students. Schraw suggested that while using the SEM teachers could ask students to complete each row of the matrix either individually or in a group over the course of the school year. In this study, however, I used the SEM to help students reflect about strategy use both individually and as small groups. I also used the SEM to facilitate

whole class discussions on the metacognitive knowledge associated with using the strategies introduced. Specifically, during Cycle 1 and Cycle 2 whenever I introduced a new strategy I asked students to fill in the SEM individually. Once students had filled it in, they were encouraged to share what they had written with a peer. This was followed by a whole class discussion and reflection on the what, how, when and why of strategy use (i.e., declarative, procedural and conditional knowledge).

I followed this particular procedure in my lessons for two reasons. First, I thought this could stimulate students to think deeply about the types of metacognitive knowledge which might help them retain the information related to strategy use. Pressley et al. (1992b: 5) point out that 'when through their own actions students develop knowledge about strategies, and about when and how to deploy them, they have an opportunity to acquire a deep, personal understanding of the intellectual processes being acquired. This thorough understanding promotes access to and application of what has been learned'. Other researchers (e.g. Gagne & Brown 1961) have also emphasized that guided discovery produces greater involvement and understanding in students. Second, in keeping with Poplin's (1988) criticism that strategy instruction prefers the learner to be a passive recipient of instruction, I did not want to 'provide' students with metacognitive knowledge associated with the strategy use. Rather, I wanted students to 'produce' metacognitive knowledge. By doing so I aligned myself with the cognitive perspective of language learning that view the learner as 'an active participant in the learning process' (William & Burden 1997: 13) and 'places great responsibility on the learner' (Bialystok 1991: 77). As Larsen-Freeman (2001:12) argues, rightly in my view, the learner is not 'merely a passive recipient' and learning is not merely a 'unilateral process…dependent on some benevolent, skilful, more proficient interlocutor'. Thus, in the learning process I wanted students to become

thinking participants. However, in consideration with Vygotsky's (1978) sociocultural view of learning I also provided students with opportunities to discuss what they had written in the SEM with peers as well. Findings of the study show that students from both the cycles benefitted from thinking how, where and why strategies are used in different ways. For instance, Furqan in Cycle 1 thought that filling in the SEM helped students to 'think thoroughly' and gain procedural knowledge associated with the strategies (see Extract 5.34), whereas Nida in Cycle 2 thought that reflecting on the what, why and how of the strategies helped her set and achieve goals as it fostered her interest in reading and helped her remain focused (see Extract 6.34). These findings reveal that there existed a sense from the students that they appreciated thinking about metacognitive knowledge associated with using the strategies.

However, it must be noted that some students in Cycle 2 needed guidance on how to write about and differentiate between 'how' and 'when' aspects of the use of strategies before they could fill the matrix in accurately (see Extract 6.22). Readers may recall that to help students differentiate between the two I provided students with a completed SEM so as to raise their awareness of how it could be filled in (see Section 6.2.1.2 and Table 6.3, p. 233). This further assistance helped students understand how to present the difference between procedural and conditional knowledge associated with strategies (see Extract 6.28). These findings illustrate that the instructional approach I utilized helped me transfer the responsibility of thinking about the metacognitive knowledge associated with using the strategies to the students. Overall, this finding also supports the usefulness of thinking about declarative, procedural and conditional knowledge of strategies. However, it suggests that teachers of my and may be other contexts can encourage students to think about the what, how, when and why of strategy use, rather than offering explanations as has

been done by a number of previous L2 researchers who provided metacognitive reading strategy instruction (e.g. Carrell 1985; Carrell et al. 1989, Raymond 1993; Zhang 2008) as discussed in Section 3.2.7. Involving students in constructing metacognitive knowledge in a structured and scaffolded context could help counter the objection of Poplin (1988) and other constructivist educators towards strategy instruction who contended that explicit strategy instruction is mechanistic.

In keeping with the explicit instructional practice, during the study I also provided my students with guidance as to how to build their metacognitive knowledge of the use of strategies by modeling the strategies I introduced during the lessons. Teacher modeling makes 'visible to students the very complex and obscure nature of using strategies while reading' (Almasi 2003: 61). To engage students cognitively during teacher modeling, I asked them to perform certain tasks. For instance, as mentioned in Section 5.2.1.1, prior to performing modeling I asked students to take a note of the strategies I used while reading. I also asked them to note down where, when and how I used strategies during teacher modeling. At the end of teacher modeling I also asked students to point out where in the text I had used the strategies mentioned by them and to explain how I used them. To the best of my knowledge, researchers have not engaged students during teacher modeling using the tasks I used during the study. Recall, Hudson (2007) adapted eight steps proposed by Wilhelm (2001) in using think aloud techniques to teach strategies (see Section 3.2.7). The activities I used during think aloud were different from these steps. Findings of the study reveal that the students from both Cycle 1 and Cycle 2 valued teacher modeling as it built their procedural and conditional knowledge of the strategies (see Sections 5.2.1.1 and 6.2.1.3). Findings also show that one of the participating students in Cycle 1 reported that teacher modeling developed her awareness of how to think during reading (see

Extract 5.29). What is more, the findings show that one of the students in Cycle 2 in particular thought that teacher modeling made students aware of what they do while reading (see Extract 6.36). These findings are in line with Ivey and Broaddus's (2001) contention that teacher modeling could provide scaffolding to understanding. Moreover, these findings correlate with previous studies which recommend teacher modeling during metacognitive reading strategy instruction. For instance, in a recent study that used teacher modeling to introduce reading strategies to students, Massey (2003) reported that her students gained knowledge of the strategies. The author suggests that teacher modeling could be used as instructional tool to scaffold comprehension awareness. Likewise, Kim and Cha (2015) recommend using think aloud as instructional tool. As discussed in Section 3.2.6.3, their study showed that teacher modeling was effective in promoting the participants' regulation of cognition. Overall, the findings of the study suggest that contextually plausible application of the practice of teacher modeling could bear positive results in an ESL university level context.

Besides fostering students' metacognitive knowledge associated with using the strategies, I provided students in both cycles with several opportunities to practice using the strategies I introduced during the study. Previous literature has considered it essential to provide students with plenty of guided and independent practice to use the strategies introduced to them (e.g. Pearson 1982; Rosenshine 1997). For this purpose, I used the texts and the tasks given in the prescribed textbook, as mentioned in Chapter 2. Moreover, I provided students with opportunities to assess and evaluate their own strategy use. To scaffold their ability to do so, I provided students with two tools, namely, the RC (see Table 3.2, p. 76) and the SL (see Figure 5.8, p. 168). The findings of the study reveal that the RC helped some students to effectively carry out

the task. This was so since they systematically planned, monitored and evaluated their reading (see Sections 5.4 and 6.4). This finding is comparable to that of Schraw (1998: 120) who indicates that the RC 'enables novice learners to implement a systematic regulatory sequence that helps them control their performance'. The findings of the study also reveal that the SL helped students in Cycle 1 and Cycle 2 evaluate how the strategies shaped their reading of the assigned text (see Section 5.2.1.3 and 6.2.1.3). This finding supports Auerbach and Paxton (1997: 246) who used the SL in their study 'to enable students to critically evaluate how the strategy shaped their reading of a particular text'. Taken together, these findings support the case for using the RC and the SL during metacognitive reading strategy instruction in my context that has rarely been used by researchers and practitioners thus far in L1 or ESL context.

7.1.2 Creating opportunities for collaborative discussion about strategy use

The literature on metacognition suggests that teachers should let the 'students teach each other about reading and studying processes' (Garner 1987: 137). The literature also indicates that peer tutoring and collaborative group work make important contributions to the development of metacognitive abilities (Vauras et al. 2003; Liskala et al. 2004). Moreover, the literature indicates that 'strategies can be learned through mediation or assistance' from others (Oxford 2011: 27). In the current study, I provided students of Cycle 1 and Cycle 2 with multiple opportunities to engage in collaborative discussions about strategy use. For instance, I provided students with opportunities to verbalize during a collaborative think aloud the strategies they used during reading (see Sections 5.2.1.1 and 6.2.1.3). Findings reveal that the students in Cycle 1 reported that the 'other' had played a significant role in raising their awareness of reading strategies during the think aloud activity (see Sections 5.2.1.1).

In addition, the findings show that most of the students in Cycle 1 thought that the think aloud had given them an opportunity to become aware of the strategies used by another student (see Section 5.2.1.1). Moreover, the findings show that one of the participating students in Cycle 2 reported that she became aware of how she used the strategies during think aloud (see Extract 6.42). These findings corroborate the idea of Pintrich (2002) who argues that the discourse about cognition among students help them become more aware of their own metacognitive knowledge as well as their own strategies for learning and thinking. They also support the idea of Almasi and Hart (2011) who suggest that verbalizing and sharing thought processes used while reading enable students to become metacognitively aware while reading and to evaluate their reading progress. Findings also reveal that some students used the new strategy they had learnt from their partner when it was their turn to think aloud (see Extract 5.31). This suggests that the collaborative think aloud could help some students internalize the strategy used by other students. It also echoes the literature that indicates that collaborative discussions provide opportunities to students to observe the higher-order thought processes of their peers before trying to accomplish tasks on their own (Almasi 1995; Goately et al. 1995).

Overall, these findings support existing L1 literature in providing further evidence of the usefulness of combining the elements of think aloud with collaboration (e.g. Palincsar & Brown 1984; Pressley et al. 1992a; Anderson & Roit 1993; Klingner et al. 1998). Moreover, it lends credibility to the usefulness and appropriateness of collaborative think aloud in an ESL setting. That is, it highlights the important role collaborative think aloud could play to scaffold ESL university level students' emerging understanding related to strategy use as well to enable them to become metacognitively aware of the intra- and inter-individual differences in strategy use by

them and others, an area that has not been investigated qualitatively in the adult L2 literature (see Section 3.2.7).

With respect to the use of collaborative think aloud what bears noting is that some students in Cycle 1 found think aloud challenging since I asked them to engage in collaborative think aloud at the start of the intervention stage (see Section 5.2.1.1). However, when I postponed collaborative think aloud during Cycle 2 till students got sufficient opportunities to privately reflect and share the strategies they had used without verbalizing them in front of others, students found think aloud easy and enjoyable the very first time they carried it out (see Section 6.2.1.3). This suggests that in my context it is better to engage students in a collaborative think aloud after they have gained some knowledge of strategy use.

In addition to think aloud, I provided students from both the cycles with opportunities to engage in collaborative discussion about strategy use during the lessons on Warwick test (see sections 5.2.2 and 6.1.6) and learners' diary (see Sections 5.2.2 and 6.2.2). For instance, during the lessons on Warwick test in both cycles I elicited from students what strategies they used to figure out the answers. This invited students to verbalize the strategy or combination of strategies that they used to arrive at the answer. Almasi and Hart (2011: 264) suggest that during classroom teaching 'teachers can encourage metacognitive behaviours by asking open ended questions that encourage students to share their thought processes'. Such sharing brings awareness to what are typically covert or hidden thought processes (Prawat 1989). In this study, I expanded the idea proposed by Almasi and Hart (2011) by facilitating lessons that encouraged students to focus on their use of reading strategies during the test. Findings reveal that as a result of collaborative discussion on the strategies that students used during Warwick test, some students in Cycle 1 became aware of the

strategies used by other students (see Section 5.2.2). In addition, some students in Cycle 2 also gained knowledge about strategies during the lesson (see Section 6.1.6). With respect to the learner diary, I provided students with opportunities to read and respond to other students' diaries. Findings reveal that three participating students in Cycle 1 and all four participating students in Cycle 2 thought that they learnt strategies other students used through reading their diaries (see Sections 5.2.2 and 6.2.2). These findings indicate that students benefitted from collaborative discussions about strategy use when I used my research tools for pedagogical purpose during the study. Differently put, the findings reveal that using research tools, the reading test and the learners' diary, as pedagogic tools helped foster metacognitive awareness of reading strategies in ESL university level students. This adds a further dimension to the existing research and suggests that researchers and practitioners could make use of these or similar research tools for promoting metacognition of reading strategies in students, a possibility that has not been explored in the literature on strategy instruction so far.

7.1.3 Creating students' interest in reading

The literature highlights that the level of interest plays a role in comprehension monitoring (De Sousa & Oakhill 1996). In addition, previous studies indicate that highly motivated learners use more strategies than students who are not highly motivated (e.g. Oxford & Nyikos 1989; Ehrman & Oxford 1990; Wharton 2000) and that motivation is the cause of the use of L2 learning strategies (Dornyei & Skehan 2003). In the current study, I tried to foster students' interest in reading since most of the students in Cycle 1 and some in Cycle 2 did not display an interest in reading at the start of the cycles (see Sections 5.1.5 and 6.1.5). For this purpose, I took a number of measures in both cycles of the study. For instance, I employed pair and group work

in the lessons. The importance of collaboration among students have been variously explored in the literature on reading (e.g. Turner 1995; Guthrie & Alao 1997; Guthrie & Davis 2003; Wentzel 2009), with researchers showing that collaboration could amplify students' motivation. In addition, I engaged students in goal setting since it could increase motivation (Short & Weissberg-Benchell 1989). Moreover, I took in-class decisions to reshape the lessons on the basis of students' response to the lessons since 'being responsive to students' interest motivates students' (Guthrie 2011: 193). Moreover, I shared with students the meaningfulness of the activities they were engaged in since if students do not consider a learning activity time and effort worthy, they might not engage in a satisfactory way, or even disengage in response (Fredricks et al. 2004). Furthermore, I tried to strengthen students' sense of efficacy in reading by helping them realize that the problems they face during reading could be the result of incorrect strategy choice rather than low ability. I did this since the 'students' perception of their own competence influences the effort they expend recruiting and using different reading strategies' (Paris et al. 1991: 631).

The findings of the study reveal that these motivation-enhancing practices developed students' interest in reading and reading strategies (see Sections 5.1.6, 5.2.3, 6.1.6 and 6.2.3). The findings of the study also show that raised awareness of reading strategies enhanced some students' motivation to use the reading strategies (see Sections 5.2.3 and 6.2.3). These findings suggest that metacognition and motivation worked together to interact with each other during the lessons, paving the way for raised students' interest, awareness, use and regulation of reading strategies. Put another way, it seems metacognition and motivation influenced one another during the study. This suggests that the motivational dimension should be taken into account during metacognitive reading strategy instruction for a more complete and useful instructional practice in

my and maybe other contexts. Moreover, since the study showed that it was impossible to separate affect from the metacognitive experience of the use of the strategies (see for example Sections 5.2.1.3 and 6.2.1.2) it seems all the more important to facilitate metacognitive reading strategy instruction that focuses the lens more sharply on motivational factors. In this regard, Ushioda (2014: 45) also states that research should highlight the link between metacognition and motivation in L2 learning research since 'the intersection between motivational and metacognitive engagement remains a largely under-theorised and under-explored area' within the field of L2 learning research (Ushioda 2014: 45). To elaborate, in her current paper Ushioda (2014) examined the nature of the interface between motivation and metacognition and showed that the exercise of metacognition is dependent on the motivation to do so, which in turn is based on learners' sense of autonomy in the learning process.

7.1.4 Conclusion

In conclusion, it seems fitting to say that I kept in view the instructional practices that have been shown to have a positive impact on students' awareness, use and regulation of reading strategies in previous studies. These instructional practices, namely teacher modelling, guided and independent practice; and students' collaborative think aloud provided me with a useful starting point to implement the instruction. However, I did not transfer them wholesale into my context. Rather, I modified them to make them work for my students on the basis of my personal understanding of language teaching and learning, as well as on the basis of emerging realities in my context. That is, I responded to the emerging needs of the students during the lessons and reviewed the teaching and research tools, for instance the 'exit slips' to plan and design the next

lesson. This was in keeping with the action research design of the study which is inherently iterative, ongoing and emergent.

Moreover, I did not go to the lessons with any fixed pre-planned design that I operationalized in the classroom. Instead, I started from where the students were in terms of their understanding and tried to make the instructional practices contextually plausible. In other words, keeping in view what is appropriate and helpful in one context might not be of relevance to another (Holliday 1994; Wedell 2004), I did not adopt a top-down approach to implement the instructional practices produced in other parts of the world.

Besides that, during teaching, I did not offer explanation of the declarative, procedural and conditional knowledge associated with using the strategies as discussed in Section 7.1.1. This provided students with the opportunities to be active participants in the learning process and to construct the metacognitive knowledge associated with using the strategies. I also did not introduce all the pedagogic tools simultaneously, namely SL, SEM and RC, that I used during the study. Rather, I introduced one tool at a time and tried to understand students' response towards it (See Sections 5.2.1 and 6.2.1). I did this since I did not want to overload my students' cognition.

In my opinion, teachers in mine or other similar contexts could also promote metacognition of reading strategies at higher education level using the instructional practices I utilized during the study. However, to be an effective teacher of metacognition and reading strategies teachers would need to reflect on their role in the reading classroom. In this regard, for instance, teachers would need to realize that their role in a reading class is not to explain the text to students as done by majority of teachers in my context (see Section 2.1.5). Rather, they should try to promote self-awareness and self-regulation of the reading process in their students so as to help students 'learn how to

learn.' Besides that, teachers would need to be responsive and iterative during metacognitive reading strategies instruction. To this end, teachers would need to overcome the contextual challenge of religiously following the assigned textbook or a pre-designed lesson plan to exercise their own agency during the teaching-learning process. In other words, teachers would need to embrace spontaneity during the lessons, even if it neither appreciated nor discussed in their contexts. This is important since the process of metacognitive strategy instruction appeared fluid and locally constituted during this study (see Section 5.2.1.1). Moreover, teachers would need to adjust the lessons on the basis of students' emerging needs during the instruction. In other words, they need to adopt an inclusive pedagogy during the lessons to keep students at the center of the learning process. This might not be easy for those teachers who are used to of conducting teacher-led rather than student-led lessons. Furthermore, teachers would need to implement one instructional practice at a time so that they could reflect on the impact of their practice and can reform it if needed. It is also important to implement one instructional practice at a time since the process of metacognitive reading strategy instruction is challenging and it requires an intense amount of reflection and effort to learn to teach strategically as discussed in Section 6.2.1.1.

7.2 Change in students' awareness and use of reading strategies

In keeping with my second and third research questions, this section examines the core findings related to the changes in the participating students' awareness and use of the reading strategies within the context of the literature on metacognitive reading strategy instruction. In doing so it also illustrates the development of awareness and use of reading strategies in participating students over a period of time.

In terms of change that metacognitive instruction has on students' awareness of the reading strategies (research question 2), there appears to be little doubt of an overall

gain in participating students' awareness of the reading strategies during the study. Particularly, the study reveals that three participating students in each cycle, namely, Furqan, Khadija and Ali in Cycle 1 and Rida, Nida and Saba in Cycle 2, who at the start of the study exhibited no awareness of the reading strategies they had used in the past before reading an academic text (see Sections 5.1.2 and 6.1.2), demonstrated an awareness of them within two months of instruction (see Sections 5.3.1 and 6.3.1). The findings, moreover, reveal that one participating student of each cycle realized within two months of instruction that they had less than fully comprehensive metacognitive knowledge of the reading strategies they already used. More specifically, Saba in Cycle 1 reported realizing that she lacked both declarative and conditional knowledge of the strategies of skimming and scanning (see Section 5.3.1). Likewise, Nida in Cycle 2 reported that she lacked declarative and conditional knowledge of the other two strategies, namely prediction and activating prior knowledge (see Section 6.3.1). These gains in students' awareness of the reading strategies that were already in their repertoire of use was of particular importance to the study as the literature stresses that 'helping learners become metacognitive about the use of strategies in their current repertoire is more effective than asking them to learn to use different and new strategies' (Griffith & Ruan 2005: 13). The findings related to students' gain in declarative, procedural and conditional knowledge also contribute to the existing research in the field since change in students' metacognitive knowledge of reading strategies over a period of time is a topic that has not been explored in the literature, as discussed in Section 3.2.6.1.

The findings of the study also reveal that the participating students became aware of the reading strategies I focused on during the study. Evidence of this can be seen in the fact that almost all students gained declarative, conditional and procedural

knowledge of the introduced reading strategies. More specifically, the findings reveal that all the participating students in both cycles exhibited gaining declarative knowledge of the strategies of prediction, activating prior knowledge, skimming, scanning and identifying the main idea (see Sections 5.3.2.1 and 6.3.2.1). The participating students' conditional and procedural knowledge of the reading strategies introduced were also bolstered during the study. However, in Cycle 1 two participating students, namely Saba and Furqan, demonstrated a thorough understanding of the why, when and how to use the strategies introduced (see Section 5.3.2.1). In contrast, in Cycle 2, all four participating students exhibited comprehensive conditional and procedural knowledge of the introduced strategies (see Sections 6.3.2.1 and 6.3.2.2). Apparently, there are two possible drivers of greater gains of procedural and conditional knowledge of reading strategies in all the participating students in Cycle 2. First as compared to Cycle 1, in Cycle 2 I spent more time discussing *when* and *why* to use the introduced strategies to develop students' conditional knowledge, in keeping with the decision I took at the end of Cycle 1 (see Section 5.3.2.1). Second, I provided students in Cycle 2 with more opportunities as compared to students in Cycle 1 to reflect and discuss with others *how* they used the introduced reading strategy. For this purpose I used the SL in Cycle 2 from the start of the intervention stage of the study. I also used the RC in more lessons in Cycle 2 as compared to Cycle 1. These factors could have accounted for enhanced conditional and procedural knowledge in students in Cycle 2 as the literature claims that 'students will transfer a strategy to their tasks if they possess the 'how to employ' or procedural knowledge of that strategy and the 'why and when to use' or the conditional knowledge' (Simpson et al. 2004: 3). Overall, the finding that the participating students became aware of the strategies introduced corresponds to Huang and Newbern's (2012) finding that indicated that adult ESL students with

limited English and literacy skills showed awareness of the strategies taught after the implementation of metacognitive reading strategy instruction for four months. They reported that the students in their study could name the strategies, explain when they used the strategies, and identify the purpose for strategy use just like students of my study.

What is noteworthy is that the foregoing findings also show that the participating students' reading abilities were not necessarily related to their reported awareness of the reading strategies. This is evident from the fact that Furqan in Cycle 1, who had good reading ability demonstrated no awareness of the strategies he used before reading an academic text prior to the start of the study. This finding contrasts with the existing literature that shows that efficient readers exhibit an awareness of strategies when reading in English and other languages. For instance, Sheorey and Mokhtari's study (2001), discussed in Section 3.2.6.1, showed that good L1 and ESL readers of English were aware of the reading strategies, and knew how to utilize them.

The findings of the study also reveal that Saba in Cycle 1, who had very good reading ability, lacked declarative and conditional knowledge of the strategies of skimming and scanning. This finding also contrasts with the existing literature that indicates that more proficient readers tend to have better awareness of metacognitive knowledge than poor readers (e.g. Myers & Paris 1978; Forrest & Waller 1980; Phakiti 2003). To put it another way, the literature points out that only 'reading novices have some metacognitive deficiencies in them. These deficiencies appear in both declarative and procedural knowledge categories' (Garner 1987: 36). In one study, for instance, Gambrell and Heathington (1981) investigated good and poor adult readers' metacognitive differences in strategy awareness. They found that as compared to good adult readers, poor adult readers reported awareness of fewer strategies and were not

aware of how and when to use them. Wu (2002) also explored if high proficient students differed from low-proficiency students in terms of their reading awareness. His study showed that more proficient readers appeared to have more awareness of metacognitive skills as compared to low proficient readers. I suspect that one reason for the lack of relation in students' reading ability and their metacognitive awareness of the reading strategies may lie in the participating students' prior educational experiences. As noted in Sections 5.1.1 and 6.1.1, participating students were taught to read each and every word during reading. This could have developed a word-centered theoretical orientation of reading in students as suggested before. This in turn could have developed a deficiency in students' metacognitive knowledge of reading strategies even though some of them learnt to read well. This assumption is in line with the literature that suggests that some in-school reading experiences could actually produce the knowledge problems in students. For instance, Garner and Kraus (1981-82) point out that instruction strongly affects the students' perception of the reading process. In their study they claimed that the poor readers in their study did not have knowledge about appropriate comprehension strategies because the instruction they received emphasized oral reading and decoding, at the expense of comprehension. Along similar lines, Pintrich (2002: 221) stated that 'a teacher may encourage the use of certain strategies for reading'. Likewise, Sheorey and Mokhtari (2001: 433) point out that 'the reader's metacognitive knowledge about reading may be influenced by a number of factors, including previous experiences and culture-specific instructional practices'.

The findings also show that all four participating students from both cycles not only developed metacognitive awareness of the introduced reading strategies but also became aware of the knowledge they gained during the study (see Sections 5.3.2.1

and 6.3.2.1). This indicates that the students began to develop metacognitive knowledge of the two components identified by the literature, namely, knowledge about cognition and awareness of one's own cognition (Harris et al. 2010).

With regard to Research Question 3, the findings reveal that the participating students from both cycles used the reading strategies they got introduced to them during the lessons. This was evident in the findings from the various data sets. For instance, the findings from the TAP show that in Cycle 1 all four participating students deployed the strategies of prediction and activating prior knowledge. In addition, two participating students used the strategy of identifying the main idea as well during the TAP (see Section 5.3.2.2). Students used these strategies within two months of instruction although none of them reported using them at the start of the study (see Section 5.1.2). Similarly, in Cycle 2 all four participating students made predictions in the second and third TAP. Moreover, two participating students also used the strategy of identifying the main idea in the third TAP (see Section 6.3.2.2). This indicates that the participating students in Cycle 2 also started using the strategies introduced within two months of the instructions, although during the first think aloud they only used one strategy, namely, activating prior knowledge (see Section 6.1.2). These findings are consistent with the existing research outlined in Section 3.2.6.3 of this thesis (e.g. Carrell 1985; Carrell et al. 1989; Kern 1989; Zhang 2008) that shows that metacognitive reading strategy training affected changes in ESL students' use of reading strategies in short term.

Besides that, the study also reveals that all four participating students in each cycle orchestrated the combinations of strategies against the task requirement within a month of metacognitive reading strategies instruction (see Sections 5.2.1.2 and 6.2.1.2). This shows that the participating students adapted their reading strategy use

flexibly to text and task type. This flexibility addresses issues noted in Grabe's (2004: 46) call for the development of the 'strategic reader rather than [the teaching of] individual strategies'. Moreover, it shows that the participating students began to perform like strategic and metacognitively competent readers as previous researchers have argued (e.g. Anderson 1991; Pressley 2000) that beyond simply knowing what strategies to use, the readers must also know how to use the reading strategies successfully and know how to orchestrate their uses with other strategies when reading various texts for various purposes. Results from other studies (e.g. Macaro & Erler 2008; Kim and Cha 2015 discussed in Section 3.2.6.3) have also indicated that the students who had undergone metacognitive reading strategy instruction became better orchestrators of the strategies at their disposal.

Overall, the findings related to change in students' metacognitive awareness and use of reading strategies support and reinforce the findings of the existing literature that indicate that strategies could be taught and students' awareness of strategies increases as a result of instruction (Nunan 1997; Chularut & DeBacker 2004; Tinnesz et al. 2006; Ko 2007, Mizumoto & Takeuchi 2009; Burchard & Swerdzewski 2009; Chalmers & Fuller 2009; Aghaie & Zhang 2012; Huang & Newbern 2012). Moreover, the findings support Auerbach and Paxton's study (1997) discussed in Section 3.2.6.3 of this thesis that indicates that a classroom-based program of metacognitive instruction can improve students' awareness and understanding of reading strategies.

7.3 Change in students' regulation of reading strategies

As stated earlier, there are three components of regulation, namely planning, monitoring and evaluation (Schreiber 2005). The literature indicates that a student who has strong self-regulation is able to select, use, and monitor reading strategies

when reading (Horner & Schwery 2002). In this study, the findings reveal that the participating students in both Cycle 1 and Cycle 2 with the help of the RC began to regulate their use of the reading strategies during the lessons as they planned, monitored and evaluated their use of reading strategies.

Planning requires setting goals as well as the organization and management of strategies for achieving the goals (Eilam & Aharon 2003). Findings specific to planning reveal that all four participating students in each cycle consciously selected the strategies they were introduced to during the lessons to plan their reading with respect to their reading goals (see Sections 5.4.1 and 6.4.1). For instance, Khadija in Cycle 1 planned to use strategies of predicting, rereading, pausing and identifying the main idea for carrying out the task that required students to find the reasons why climate change will lead to cooperation (see Section 5.4.1, for details of the task see Section 5.2.1.3 and Figure 5.7, p. 167). Likewise, Marium in Cycle 2 planned to use the strategy of skimming to perform the activity that required students to order the main idea by skimming the text (see Section 6.4.1, for details of the task see Section 6.2.1.3 and Figure 5.6, p. 165). This was in keeping with the literature that indicates that planning occurs when a reader determines which cognitive strategy would be most appropriate to use to reach a particular cognitive goal (Jacobs & Paris 1987; Nash-Ditzel 2010). It also suggests that all participating students in both the cycles began to act like 'good readers' as they used their awareness of the purpose for reading to guide their progress (Garner & Reis 1981; Blanton et al. 1990).

Monitoring of cognitive processing is facilitated by awareness of one's cognitive activities (Haller et al. 1988). With regard to monitoring, the findings reveal that the participating students from both cycles took note of their metacognitive experiences of incomprehension prior to the start of the study (for details see Sections 5.1.3 and

6.1.3). However, during the study the range of metacognitive experiences the participating students took note of increased. For instance, keeping their goal in view the participating students from both cycles consciously monitored their use of strategies during carrying out the assigned task (see Sections 5.4.2 and 6.4.2). In addition, they noticed that they used certain reading strategies before reading an academic text prior to the start of the study as well (see Sections 5.3.1 and 6.3.1). These metacognitive experiences that facilitated participating students' monitoring of comprehension were in line with the literature discussed in Section 3.2.4.2 that states that metacognitive experiences are about 'cognitive goals, cognitive actions, and/or metacognitive knowledge' (Pressley et al. 1985: 126). Readers may recall that cognitive goals (tasks) are the objectives that instigate and maintain the cognitive enterprise (Flavell 1981), while the cognitive actions (strategies) are routines or procedures that facilitate a task. It seems that the participating students in both cycles underwent these metacognitive experiences during the study for a number of reasons. First, the activities students carried out during the study, such as filling in of the SL (see Sections 5.2.1.3 and 6.2.1.1), the RC (see Sections 5.2.1.2 and 6.2.1.3) and listing strategies used during reading (see Section 5.2.1.2 and 6.2.1.2) demanded engagement in conscious cognition. As discussed in Section 3.2.4.2, metacognitive experiences can occur whenever one does a lot of conscious cognition (Flavell 1981). In the context of this study, the activities mentioned above demanded students should consciously monitor their reading. Second, the reading tasks students carried out during the study were semi-familiar to them. As stated earlier, metacognitive experiences can occur when 'the cognitive situation is something between completely novel or completely familiar' since in this situation an individual knows enough to formulate questions but not enough for the processing to be completely accurate and effortless (Flavell 1987: 28). Third, students made decisions regarding what strategies

to use to carry out a task (see Sections 5.2.1.2 and 6.2.1.2). Metacognitive experiences are likely to occur when it is important to 'make correct inferences, judgments, and decisions' since one would monitor them carefully (ibid.).

Evaluation involves a reader's assessment of his/her own understanding during reading (Hacker 1998; Zabrucky & Ratner 1989) as well as assessment of the effectiveness of a chosen strategy for the task (Paris et al. 1992). The findings reveal that the participating students from both Cycle 1 and Cycle 2 evaluated and monitored their use of reading strategies using the RC, with the consequent awareness used to direct processing so as to maximize comprehension. Specifically, on the one hand, it was found that some participating students, for instance, Khadija in Cycle 1 after closely assessing how she had been reading decided to continue processing the text in the manner she had been (see Section 5.4.2). On the other hand, some other participating students, for instance, Furqan in Cycle 1, and Marium and Nida in Cycle 2 adjusted their techniques and strategies in the act of reading to reach their goals (see Sections 5.4.2 and 6.4.2). Khadija's behaviour was in accordance with the literature that indicates that 'monitoring can stimulate readers to continue processing text in the same way they had done up to this point (i.e., if the reader monitors that comprehension is going well)' (Pressley & Afflerbach 1995: 62). At the same time, Furqan's, Marium's and Nida's behaviour was also in line with the literature that indicates that 'a student's realization that he (she) does not understand text material he (she) is reading, are expected to increase that student's willingness to make strategic changes' (Zimmerman & Paulsen 1995: 16-17). To put it another way, the literature indicates that monitoring prompts the student to find a more suitable learning strategy since it often reveals the inadequacy of a learning strategy (Pressley & Ghatala 1990). These findings suggest that monitoring helped students 'become aware of their

thinking and their performance while engaged in a reading task' (Joseph 2005: 203). Moreover, it helped participating students discriminate between effective and ineffective performance (Thoresen & Mahoney 1974). The fact that the participating students monitored and evaluated their comprehension during the study indicated that they began to become metacognitive readers. It seems to be the case since it is well-established in the literature that 'learners with high levels of metacognitive abilities are able to monitor and regulate their learning processes to accomplish the learning goals they set' (Griffith & Ruan 2005: 16). In addition, it is well-known that metacognitive readers engage in self-monitoring and 'purposefully or intentionally or willfully' (Alexander & Jetton 2000: 295) apply strategies and evaluate their effectiveness to regulate their understanding of text.

In a nutshell, from the foregoing discussion it could be seen that the students began to regulate their use of reading strategies after a short time of instruction in both cycles of the study. This finding was similar to that of Aghaie and Zhang's (2012) study. Quasi-experimental in design, they found that explicit teaching of cognitive and metacognitive reading strategies affected changes in intermediate level Iranian students' reading comprehension and strategy use. They reported 'students became self-regulated learners who take control of the 'what, when, and how' of strategies and used them independently of a teacher, and possibly outside the classroom without any external influence because their awareness of strategies increased' (ibid.: 1076). Moreover, Sporer et al. (2009: 285) who also investigated the effect of strategy training on 210 elementary-school students' reading comprehension in a quasi-experimental study, reported that 'after a relatively short time of reading comprehension instruction students had become self-regulated readers'.

Chapter Eight

Conclusion

In this concluding chapter I summarise the contextual, theoretical, pedagogical and methodological contributions which this research has achieved. I also discuss the implications that can be drawn from the findings. Moreover, I provide recommendations for other researchers and further research in this area. Finally, I reflect on the whole process presented in this thesis.

8.1 Summary of research contributions

In the previous chapter I discussed the findings emanating from this research within the context of current literature on metacognitive reading strategy instruction. In this section I will summarise the pedagogical, theoretical and methodological contributions which the study has achieved.

As mentioned in Section 1.1, there has been surprisingly lack of research on L2 reading instruction facilitated at the university level in Pakistan. This means that there has been almost no explicit attention to L2 reading instruction and research as recently indicated by Muhammad (2013). Considering that there is no study on metacognitive reading strategies instruction in university level context in Pakistan, the first contribution which this study has made is to provide metacognitive reading strategy instruction in this under-researched area through a data-led understanding of instructional practices employed by a teacher-researcher. Another contribution of the study is that the instructional practices used in this study (see Chapter 5 and 6 for lesson details) could be 'transferred' to other similar contexts since the teaching and learning processes in this study were 'responsive'. That is, I addressed the needs of

the learners during the lessons as mentioned before. What bears noting, however, that for potential successful 'transfer' of the instructional practices and for becoming an effective teacher of metacognition and reading strategies teachers would need to embrace flexibility and spontaneity during the lessons even if it neither appreciated nor discussed in their contexts. Moreover, they would need to teach one instructional practice at a time as discussed in Section 7.1.4.

Yet another contribution of the study is that it supports and reinforces the appropriateness, in a Pakistani public sector university, of some of the current ideas about instructional practice regarding metacognitive reading strategy instruction. For instance, the study shows that teacher modeling helps build metacognitive awareness, provide scaffolding for understanding and scaffold comprehension awareness. Moreover, the study shows that the dialogues between students helped them become more aware of their own metacognitive knowledge as well as their own strategies for learning and thinking. At the same time, however, the study extends findings in the existing literature by indicating that some of the instructional practices that are recommended by the literature could be changed and enriched during instruction at university level. In this regard, for instance, the study shows that the teachers could encourage students to think about the what, how, when and why a strategy is used during the lessons rather than offer explanations of these aspects of strategy knowledge as suggested by the literature. Overall, the current study highlight ways of helping Pakistani ESL university level students apply strategies independently to texts. Block and Duffy (2008) have pointed out that it has yet not determined in millions of diverse classrooms around the world how to help students apply strategies independently to texts.

From a pedagogical perspective, the study also contributes to the existing literature by highlighting the role motivation seems to play during metacognitive reading strategy instruction. The study shows that metacognition and motivation appear to have worked together to raise students' interest, awareness, use and regulation of reading strategies. As stated earlier, this implies that it is important to address both the metacognitive and motivational dimensions of learning during metacognitive reading strategy instruction. It also suggests that there is a need to study in detail the link between metacognition and motivation since within the field of L2 learning research, the 'intersection between motivational and metacognitive engagement remains a largely under-theorised and under-explored area' (Ushioda 2014: 45), as mentioned before.

The study further contributes pedagogically to the existing literature by highlighting how I motivated students to become interested in reading and to become strategic readers. This has remained an under-researched area in the literature. In this regard Griffiths (2013: 177) points out 'how to motivate students to become more strategically aware' remain to be answered in language learning strategies research.

In addition, this study delved deeper into understanding the change the instruction brought in students' awareness, use and regulation of reading strategies. Moreover, the study adds to and reinforces the existing body of literature that indicates that metacognitive reading strategy instruction can change students' awareness, use and regulation of reading strategies. Besides that, another contribution of the study is that it illustrates the development of awareness and use of reading strategies in participating students over a period of time. This aspect has not been paid attention to in the literature on metacognitive reading strategy instruction, although it has been identified as a gap in the literature. In fact, Griffiths (2013: 83) points out that 'the

vast majority of strategy research has looked at a sample of learners at a particular point in time rather than trying to measure changes over a period of time'.

The study also makes a theoretical contribution through highlighting that the metacognitive knowledge of self and the metacognitive experiences of task performance could be affectively charged. As discussed earlier, it appeared almost impossible to identify students' metacognitions about strategy use without reference to the emotion that accompanied the thought. The study therefore suggests expanding the scope of metacognition by including the affective dimension of learning in it, as earlier proposed by Paris and Winograd (1990).

From the methodological perspective, this study has contributed to the field by using AR methodology to explore the process of promoting metacognition of reading strategies at university level. This area has not been examined by a teacher-researcher using AR methodology at tertiary level so far. This gap has also been noticed by Cohen and Macaro (2007) who have stressed the need to include AR approach in research designs on learner strategy research. Specifically, they pointed out that AR would help provide an understanding of unanswered questions concerning how existing strategy instruction 'approaches are actually implemented in classrooms and incorporated into existing practice, and how enquiry at the chalk face can contribute to our knowledge of LLS and strategy instruction' (ibid.: 111).

Another methodological contribution of this study is that it illustrates the possibility of using research tools, such as the reading test, SORS questionnaire and the learners' diary, as pedagogical tools in an AR study. That is, this study has the merit of turning academic research techniques into familiar classroom techniques. In other words, it links teaching and researching as part of the same process and illustrates that research

tools could primarily be pedagogic tools as they could raise students' awareness and help them reflect and understand better the learning process or their progress as part of data collection as proposed by Ushioda and Smith (2012).

8.2 Implications of the study

The research procedure and findings of this study speaks directly to researchers who are interested in bridging the gap between theory and practice in the field of reading strategy instruction. This study could provide researchers with a possible model for teaching-researching cognitive and metacognitive reading strategies from the bottom-up that both informs theory and develops practice. It could also provide researchers with an insight into how to use research tools as pedagogic tools during an AR study that aims to provide metacognitive reading strategy instruction.

Moreover, the descriptive and interpretative data presented in this study could provide a guideline for the development of teacher development programmes or teaching programmes in the area of metacognitive reading strategy instruction. In addition, the details of the lessons provided in the study could serve as the starting point for teachers to plan their own teaching sessions with regard to teaching of reading strategies. Also, in the light of the instructional practices discussed in the study teachers could be encouraged to engage in metacognitive reading strategy instruction. To this end, the teacher trainer could encourage teachers to reflect on their teaching practices also by seeking students' perspective on their teaching.

8.3 Recommendations for further research

The findings and contributions of the present study point to different areas of complementary research, some of which I recommend below.

Past research has established that a good reader utilizes a number of strategies during reading (Wade et al. 1990). In the current study I found that all participating students started deploying a variety of strategies for performing various tasks. However, it is not clear what helped students decide what strategies to mobilize from a repertoire of available strategies. This could be studied in depth in a future study of a similar nature. Substantive information on how and why certain strategies are activated by students would be a valuable contribution to the field since in the literature on metacognition and reading comprehension 'there is no clear understanding of if and how some strategies are chosen over others' by good readers (Griffith & Ruan 2005: 15), let alone by students.

The current study investigated the changes in students' awareness, use and regulation of reading strategies. Studying to what extent these changes were long-lasting and if the use of reading strategies transferred across different disciplines was beyond the scope of the study. However, this could become a compelling topic of research in its own right. Future research could investigate if Pakistani university level students who are provided metacognitive reading strategy instruction use and regulate their use of the reading strategies in other subjects as well. Moreover, it could investigate if the use and regulation of reading strategies last after a year or two of the culmination of the study.

The current study discussed instructional practices used during the study for fostering metacognitive awareness, use and regulation of reading strategies in university level students. But the question remains, if different age groups in Pakistan need to be taught using different instructional practices. Future research could seek answers to this question. Exploring the possible methods that work best for Pakistani students of various age groups would be a valuable contribution to the field, since the literature

indicates that the research on metacognition has yet to determine 'what instructional methods work best' for students of different age groups (Bauserman 2005: 177).

8.4 Concluding remarks

This AR study has explored the process of promotion of metacognition of reading strategies in ESL university level students. It also illustrated the outcome of the process on students' awareness, use and regulation of reading strategies. The study reinforced existing findings and extended others in research on metacognitive reading strategy instruction.

I began this AR study with the desire to help students become metacognitive and strategic readers and ultimately I hope that this research helped my students the most. In the schools and colleges of Pakistan, students are often not taught how to read strategically as illustrated in the thesis. The description of the lessons I facilitated during the study I hope will inform other university level teachers in Pakistan who are teaching the Compulsory English Course of a possible procedure of helping students develop metacognition of reading strategies. I also hope students who were part of the study will inform other students how to read effectively. Moreover, I hope that the textbook developers would begin to think of ways of incorporating metacognitive reading strategy instruction in the lessons to help students become strategic and self-regulated readers in all subjects. That would fulfil the hope of my research participant who thought my thesis would 'represent the ideas of the mind of the student to the world' who could then try to improve education (Extract from Furqan's interview, 12.02.13). I am looking forward to sharing this experience with education personnel through conference presentations, teacher training sessions and publications.

Undertaking this study has been a highly rewarding experience for me in many ways. It has given me an insight into how I could help students become metacognitive readers that I often wondered about while teaching students in my university. Whilst I went into the first cycle of the study 'cold', not knowing which features of metacognitive strategy instruction suggested by the existing literature would work in my context, during the study I developed an understanding of the instructional practices that could be adopted and adapted in my context. I have also been enriched by the experience of adding components to the instruction to cater to the needs of my students.

But maybe more than that, doing this research had deep personal impact on me. Intellectually, I have become more reflective and have started to see connections between different fields of study such as metacognition and motivation. Emotionally, I have become more resilient and confident that I could work towards my goal in the midst of uncertain situations that I faced during data collection in the form of firing, strikes and bomb blast in my city. I also feel empowered on having built strong interpersonal relationship with my participating students who are in touch with me and discuss with me their assignments as and when required. Professionally, I have developed broader interest. Engaging in an AR study has developed my interest in other forms of teacher research as well. I am now also keen to explore how in my role as a teacher educator in Pakistan I could assist other teachers in carrying out teacher research. I hope on the basis of my study I would kindle desire in some teachers in Pakistan to become involved in teacher research since 'the best motivation to do reflective work in one's own context is to see that others have done the same – to their benefit, to that of their students, and to that of fellow professionals' (Wharton 2007: 486). Moreover, I wish to develop a teacher training course with the help of insights

gained from this research. I hope it would suggest possible methods of facilitating metacognitive reading strategies instruction to practitioners working in my and other similar contexts.

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Appendices

Appendix 1. Information sheet

PARTICIPANT INFORMATION SHEET

Title of Project: Promoting metacognition of reading strategies in a higher education context in Pakistan

Investigator: Bushra Ahmed Khurram, Centre for Applied Linguistics, University of Warwick.
Email: B.A.Khurram@warwick.ac.uk

Participant selection and purpose of study:
You are invited to participate in a study aimed at promoting awareness and regulation of reading strategies. The purpose of the study is to explore how metacognition of reading strategies could be promoted in Pakistani university-level ESL readers. The findings of the study will contribute to the understanding and development of the techniques forpromoting reading skills in students of a public sector university.

What your participation will involve:
If you are willing to participate, the researcher will ask you to

1. maintain a learner diary
2. give interviews at different phases of the study
3. take part in think aloud protocols
4. allow photos to be taken of you during the lessons

Confidentiality and disclosure of information:
All data obtained as above will be confidential to the researcher and will be used solely for research purposes. In any research report, publication or feedback to academic departments and the University, information will be provided in such a way that no participating student can be identified by name or university ID.

Feedback to participants:
At the completion of the study, all participants will be most welcome to consult the research findings.

Your consent:
Your decision on whether or not to participate will not prejudice your future relations with The University of Warwick.*If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time without prejudice.*If you have any additional questions concerning the project I will be happy to respond to them. My email address is B.A.Khurram@warwick.ac.uk

Appendix 2. Consent form

PARTICIPANT CONSENT FORM

Title of Project: **Promoting metacognition of reading strategies in a higher education context in Pakistan**

Investigator: **Bushra Ahmed Khurram, Centre for Applied Linguistics, University of Warwick**

I confirm that I have read and understood the information sheet dated_____ for the above project, which I may keep for my records, and that I have had the opportunity to ask any questions I wish.

I agree to take part in the study and am willing to

1. maintain a learner diary
2. give interviews at different phases of the study
3. take part in think aloud protocols
4. allow photos to be taken of me during the lessons

I understand that my information will be held and processed for research purposes. I understand that I will not be personally identifiable from any research report.

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason and without being penalised or disadvantaged in any way.

.....

Name of Research Participant (please PRINT) **Signature of research participant**

.....

Date **Signature of Investigator, Bushra Ahmed Khurram**

Appendix 3. Examples of code-switching during interviews

Khadija: In the beginning I just think at the end of the semester mujay aik acha speaker banna ha. But during semester I think ya bhe apply karna ha, metacognition, activate prior knowledge, main ideas kasay banana haan, kistarha karna ha, konsa subjects ma use karna ha.	Khadija: In the beginning I just think at the end of the semester I want to be a good speaker. But during semester I think that I need to apply metacognition, activate prior knowledge, how to identify the main ideas, how to do it, in which subjects to use them.

Saba: Sometimes this feeling that I will do it wrong it holds me back a lot and I like peeping into the paper usna kya likha ha. (laughs). usna kya likha ha. kuch tau pata hoga. I never peep but I have this feeling that I should peep. (laugh). kuch nazar ajae kuch thora sa because I have this feeling that I might be wrong.	Saba: Sometimes this feeling that I will do it wrong it holds me back a lot and I like peeping into the paper to find out what he/she has written. (laughs). What has he/she written? He/she might know something! I never peep but I have this feeling that I should peep. (laugh). I wish I could see something, a little, because I have this feeling that I might be wrong.

Appendix 4. Extract from interview transcription

As Salam U Aliakum, Saba

Walaikum As Salam.

Thank you for being the research participant and for you willingness to be one.

No Problem.

I have explained to you what you should expect in the interview. Should we begin with it or do you have any questions?

No mam. I don't have any questions.

Saba, would you like to tell me how do you define reading?

(umm) Reading for me is (aaa). Basically reading in my mind when we speak of the word comes of novel. So I rather read a novel than read a newspaper. So. I have never taken reading seriously. I just read if I am given the article (laughs).

Okay, so you don't like to really read?

I only like to read like novels. Something that's spider web binds you. Something that you can't put the book down. Something like that. But not the articles, newspapers. No, I am never interested in newspaper. I never touched it.

And what do you understand by the term reading? Would you like to elaborate on that?

Usually, I think throat reading.

Okay. Okay, which means reading?

Like (umm) reading for enjoyment. Or like (aaa) not in very detail.

Okay. In your opinion what do you think makes somebody a really good reader?

If they understand exactly each and every word of what they are reading about. And especially the between the line words and the phrases used. And especially the not sentences which are basically in a positive word but they are given in a twisted way to confuse you. If you are a good reader then even just having one look just a one look you should understand each and everything.

Okay. So you think it's important to understand each word while you are reading?

Because then only you will get the meaning of what you are reading.

Okay. And do you think proficient reading involves some specialized skills?

Yes. We should first know like how to convert the not words into a positive sentences to make it easier for us. And If we don't understand something then we should be able to switch it with more similar words that we can get the meaning of it. But then we are reading we have to do it really very fast so that even in one look we can get the meaning of it (aaa) (umm) And when it comes to reading we should also you know understand the use of adjectives that we can enhance the descriptive meanings of them. Because when I. I remember that when I used to read first and if I don't use to understand the meaning I used to its a bad word. Forget it. Just read. Get the idea and enjoy it. I used to take it as a bad word. If I don't know it I used to take it as a bad word. But I never used to imply ka okay I can I can even find the meaning if I did it very carefully what this word is implying here. I never went in that way. I always used to count it its a bad word.

Bad word? Because you don't know?

Because I don't know the meaning. So it's a bad word. And it does not matter I understand what it means.

Okay. And now what do you do?

And now I (aaa) like (...) now I ponder upon it that no if a word is given then it must be given for a reason. People are not stupid to write words and then you know just leave them out. So they must have a meaning. And with those meanings of those words we can get the descriptive detail about what we are reading about. So those words are not bad words they are good words, we should learn them.

Appendix 5. Sample transcribed and coded think aloud protocol

Science and society. I think that this text would be about[1] science and our society related to all the technologies, and all the machineries and all the luxuries that we have in our home like everything washing machine and dishwasher.[2] And all the luxurious of our life related to science that's helping our society. **Science has no less importance than any other subject; we can enumerate a number of advantages that we can enjoy only because of science. (…) Especially in today's world it is quite necessary to equip oneself and one's children with the adequate knowledge of science in order to live a safe and better life.** This doesn't remind me of anything and I'm not thinking about it very consciously, it's just a general thing the starting paragraph so that's not something that I'm thinking about[3]. I've completely understood the text although[4]. So **Nowadays fewer children die of curable disease because of vaccination programs introduced by global agencies. The vaccinations were developed for intensive careful management scientific activities.** So this is telling us about vaccination programs introduced to us by global agencies. It was not what I guessed before reading.[5] So **Vaccination has also developed a very significant role in our society,** so it is related to our society also. **By educating parents about the importance and preservation extents such as inoculation. Their children will be protected from diseases that were previously have caused sickness and disability thus adding pressure and deduction productivity or inconveniently.** I do not know the meaning of inoculation.[6] And inoculation in children but I think from the context of the paragraph I think to enter something, or to feed them, or to teach them anything because the sentence is inoculation in children can protect it from diseases, or it can be taken in the meaning of care, so it can be that, but I understood the main idea of the sentence.[7] (Lines deleted) **Understanding of science can also be a thing of wonder, it feeds the inquisitive mind. It can provide answers to those questions that often only small children are unafraid to ask.** What does that mean I could not understand because science of course is a mystery but children ask sometimes stupid questions, how can it be linked to science? I will read it that again[8]. **Understanding of science can also be a thing of wonder, it feeds the inquisitive mind. And it can provide answers to those questions that often only small children are unafraid to ask. Why do birds sing.** Okay, so it means that (…) in science we have the answer of everything I think, so that's how this paragraph is defining to (…) it is the logic between everything. **If I throw a ball on the air when I'm running, it will fly faster? If I throw a ball in the air when I'm running, will it fly faster? Okay why do some metals rust and other do not? Some of these questions are interesting just for their own sake but others have very real application to modern life**. While reading this I was thinking about why do birds sing? I it's not a question they are asking to me. They are just giving an example but I was thinking why do how birds sing? And would I if I'm running would the ball fly faster? I was thinking about recalling all the thing and I was thinking jo mene parha hai science me, us se me kis trah iska scientific reason de sakta hn uske bad me agay barha, in my mind I was thinking about this.[9] **Why do some metals rust and other do not?** So we have also studied this I was also (…) I also remembered the reason why do other metals rust. **Some of**

these questions are interesting just for their own sake but others have very real applications to modern life. Others have very real applications to modern life.[10] **Okay surely it is good that children should ask such questions and it's a pity that their parents cannot always answer them**. Jaisay I, I agree with this and (…) I think that the children should be encouraged to ask questions. It always (…) often happens that children are discouraged to ask questions in our society actually. So I also do not ask all the questions to my father thinking that what will he, will he insult me k tumhe ye b ni ata, ye wo.. so[11] .. **If we are to become knowledgeable well informed citizens able to live protective, healthy and satisfying life. We should all have the benefits of science and society. With an appreciation of science and technology advances communities can lead a healthier lives because there will be more effective use of resources, less wastage of live is made generally easier for more enjoyment for the population within.** More effective use of resources, I do not (…) agree with this, because as the science and technology is progressing we are uses and utilizing more resources. And like we studied in environmental science that all the earth's resources going to (…) going to finish very soon because of the (aaa) large (…) use of that on large scale. So I think (…) in this way it is a drawback of science and technology. I don't think that it should be here (…) effective use of resources should be here[12].

Annotations

[1] making prediction
[2] using background knowledge and personal experience
[3] commenting on his thinking
[4] commenting on his understanding
[5] reflecting on what he predicted before reading
[6] displaying metacognitive awareness
[7] guessing meaning from context
[8] sharing his plan regarding rereading
[9] activating prior knowledge and commenting on what he thought
[10] rereading
[11] reacting to text (agreeing with the text) + using background knowledge and personal experience
[12] reacting to text (making judgments about text using prior knowledge)

Appendix 6. Survey of Reading Strategies (SORS)

Frequency of the reading strategies students used or did not use (Cycle 1)

Dear Student,

I would like you to answer the following questions concerning reading strategies. Please note that this is not a test so there are no 'right' or 'wrong' answers to the questions. I am interested in finding out what YOU do and think when you read academic material in English. Please give your answers sincerely as this will guarantee the success of the investigation. Thank you very much for your help!

In the following section statement about what people do (the strategies they use) when they read academic or school-related materials such as textbooks or library books are listed. Five numbers follow each statement (1, 2, 3, 4, 5), and each number means the following:

• **1** means "I **never or almost never** do this."

• **2** means "I do this **only occasionally**."

• **3** means "I **sometimes** do this" (about **50%** of the time).

• **4** means "I **usually** do this."

• **5** means "I **always or almost always** do this."

As you read, **circle the number** (1, 2, 3, 4, or 5) that applies to you using the scale provided.

Category	Strategies	No of Students				
		Scale				
		1	**2**	**3**	**4**	**5**
GLOB	1. I have a purpose in mind when I read.	3	5	4	9	9
SUP	2. I take notes while reading to help me understand what I read.	1	5	10	9	5
GLOB	3. I think about what I know to help me understand what I read.	4	5	10	6	5
GLOB	4. I take an overall view of the text to see what it is about before reading it.	6	9	4	5	6
SUP	5. When text becomes difficult, I read aloud to help me understand what I read.	5	6	3	7	9
GLOB	6. I think about whether the content of the text fits my reading purpose.	11	2	4	8	5
PROB	7. I read slowly and carefully to make sure I understand what I'm reading.	0	1	2	11	16

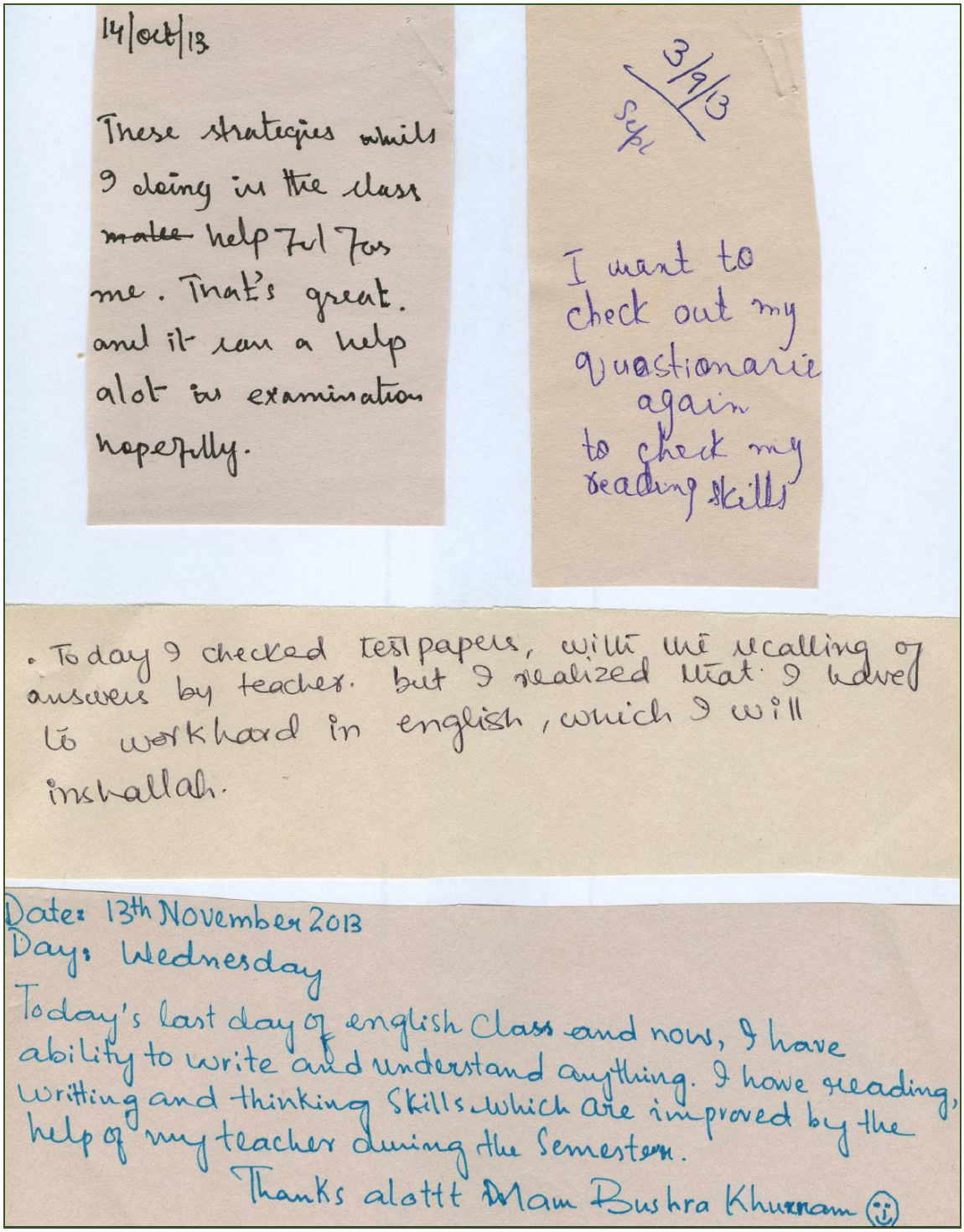
GLOB	8. I review the text first by noting its characteristics like length and organization.	10	3	8	3	6
PROB	9. I try to get back on track when I lose concentration.	0	7	2	12	9
SUP	10. I underline or circle information in the text to help me remember it.	4	3	5	5	13
PROB	11. I adjust my reading speed according to what I'm reading.	8	1	7	10	4
GLOB	12. When reading, I decide what to read closely and what to ignore	7	6	8	2	7
SUP	13. I use reference materials (e.g. a dictionary) to help me understand what I read	1	2	7	5	15
PROB	14. When text becomes difficult, I pay closer attention to what I'm reading.	1	1	4	12	12
GLOB	15. I use tables, figures, and pictures in text to increase my understanding.	5	9	8	5	3
PROB	16. I stop from time to time and think about what I'm reading.	7	7	6	6	4
GLOB	17. I use context clues to help me better understand what I'm reading.	5	9	10	3	3
SUP	18. I paraphrase (restate ideas in my own words) to better understand what I read.	1	7	9	7	6
PROB	19. I try to picture or visualize information to help remember what I read.	3	5	6	10	6
GLOB	20. I use typographical features like boldface and italics to identify key information.	15	4	2	6	3
GLOB	21. I critically analyze and evaluate the information presented in the text.	12	8	5	2	3
SUP	22. I go back and forth in the text to find relationships among ideas in it.	4	5	10	6	4
GLOB	23. I check my understanding when I come across new information.	2	8	9	6	5
GLOB	24. I try to guess what the content of the text is about when I read.	3	7	6	8	6
PROB	25. When text becomes difficult, I reread it to increase my understanding.	0	1	1	7	21
SUP	26. I ask myself questions I like to have answered in the text.	10	8	4	5	3
GLOB	27. I check to see if my guesses about the text are right or wrong.	7	4	9	7	3
PROB	28. When I read, I guess the meaning of unknown words or phrases.	3	2	10	8	7
SUP	29. When reading, I translate from English into my native language.	4	2	4	6	14
SUP	30. When reading, I think about information in both English and my mother tongue.	1	3	4	7	15

Frequency of the reading strategies students used or did not use (Cycle 2)

Category	Strategies	No of Students				
		Scale				
		1	**2**	**3**	**4**	**5**
GLOB	1. I have a purpose in mind when I read.	4	3	8	6	5
SUP	2. I take notes while reading to help me understand what I read.	3	6	8	4	5
GLOB	3. I think about what I know to help me understand what I read.	3	4	4	13	2
GLOB	4. I take an overall view of the text to see what it is about before reading it.	4	5	2	4	11
SUP	5. When text becomes difficult, I read aloud to help me understand what I read.	4	6	1	11	4
GLOB	6. I think about whether the content of the text fits my reading purpose.	10	2	8	1	5
PROB	7. I read slowly and carefully to make sure I understand what I'm reading.	0	1	1	7	17
GLOB	8. I review the text first by noting its characteristics like length and organization.	4	3	5	4	10
PROB	9. I try to get back on track when I lose concentration.	1	2	5	11	7
SUP	10. I underline or circle information in the text to help me remember it.	2	1	5	7	11
PROB	11. I adjust my reading speed according to what I'm reading.	2	3	6	11	4
GLOB	12. When reading, I decide what to read closely and what to ignore	8	4	8	3	3
SUP	13. I use reference materials (e.g. a dictionary) to help me understand what I read	1	5	9	9	2
PROB	14. When text becomes difficult, I pay closer attention to what I'm reading.	0	3	3	10	10
GLOB	15. I use tables, figures, and pictures in text to increase my understanding.	5	3	8	6	4

PROB	16. I stop from time to time and think about what I'm reading.	10	4	4	4	4
GLOB	17. I use context clues to help me better understand what I'm reading.	9	6	5	3	3
SUP	18. I paraphrase (restate ideas in my own words) to better understand what I read.	4	1	9	8	4
PROB	19. I try to picture or visualize information to help remember what I read.	5	4	5	11	1
GLOB	20. I use typographical features like boldface and italics to identify key information.	4	0	5	11	6
GLOB	21. I critically analyze and evaluate the information presented in the text.	7	3	4	8	4
SUP	22. I go back and forth in the text to find relationships among ideas in it.	2	7	6	7	4
GLOB	23. I check my understanding when I come across new information.	4	3	4	13	2
GLOB	24. I try to guess what the content of the text is about when I read.	7	2	5	9	3
PROB	25. When text becomes difficult, I reread it to increase my understanding.	1	1	2	6	16
SUP	26. I ask myself questions I like to have answered in the text.	5	6	4	9	2
GLOB	27. I check to see if my guesses about the text are right or wrong.	6	5	5	7	3
PROB	28. When I read, I guess the meaning of unknown words or phrases.	0	2	10	9	5
SUP	29. When reading, I translate from English into my native language.	0	1	5	12	8
SUP	30. When reading, I think about information in both English and my mother tongue.	1	7	5	11	2

Appendix 7. Sample exit slips



14/Oct/13

These strategies which I doing in the class ~~make~~ help ful for me. That's great. and it can a help alot in examination hopefully.

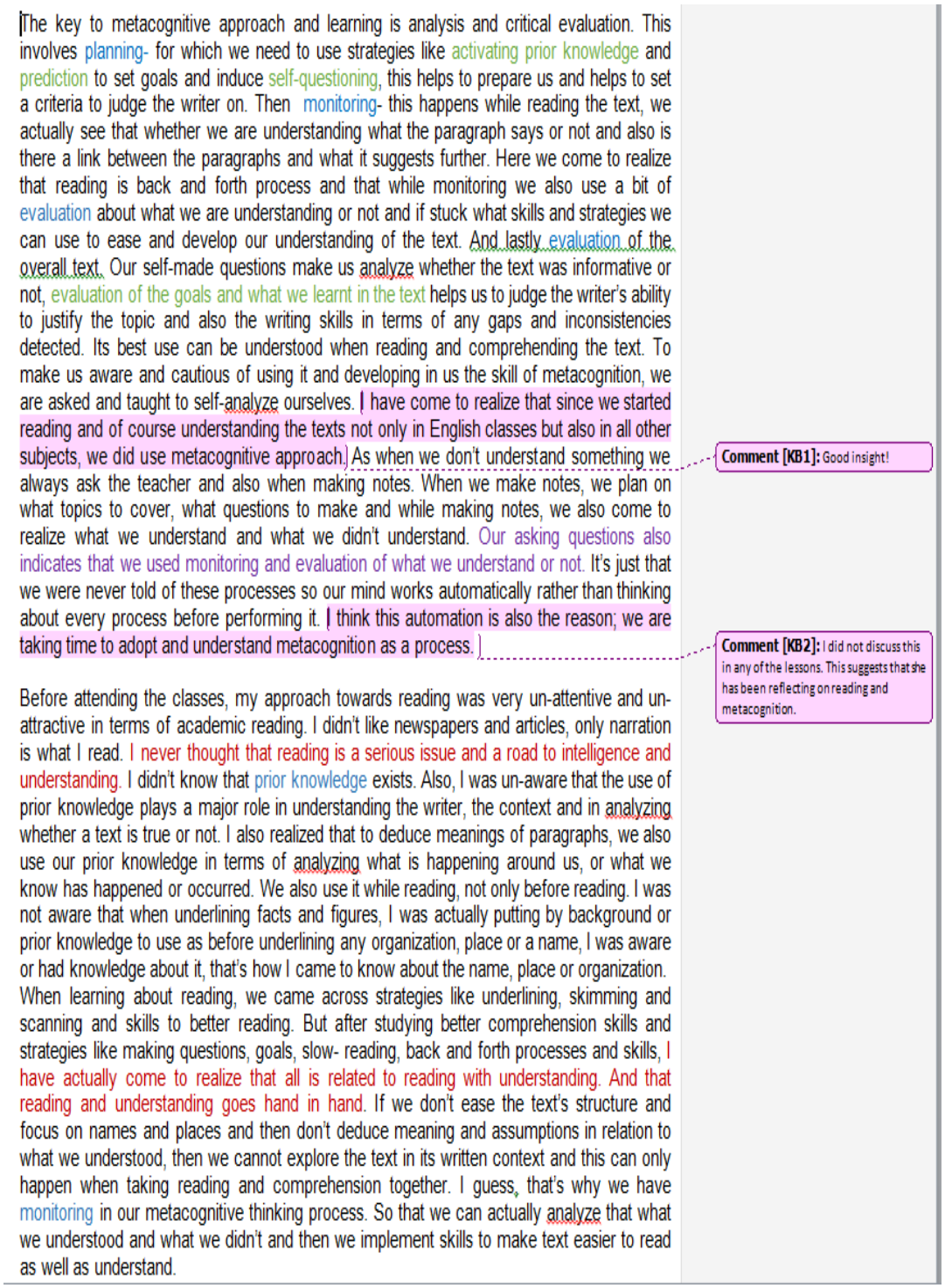
3/9/13

I want to check out my quastionarie again to check my reading skills

. Today I checked test papers, with the recalling of answers by teacher. but I realized that I have to work hard in english, which I will inshallah.

Date: 13th November 2013
Day: Wednesday
Today's last day of english Class and now, I have ability to write and understand anything. I have reading, writting and thinking skills which are improved by the help of my teacher during the Semester.
Thanks alottt Mam Bushra Khurram

Appendix 8. Example of initial comments and marking of interesting text (Saba's diary, 19 March 2013)



The key to metacognitive approach and learning is analysis and critical evaluation. This involves planning- for which we need to use strategies like activating prior knowledge and prediction to set goals and induce self-questioning, this helps to prepare us and helps to set a criteria to judge the writer on. Then monitoring- this happens while reading the text, we actually see that whether we are understanding what the paragraph says or not and also is there a link between the paragraphs and what it suggests further. Here we come to realize that reading is back and forth process and that while monitoring we also use a bit of evaluation about what we are understanding or not and if stuck what skills and strategies we can use to ease and develop our understanding of the text. And lastly evaluation of the overall text. Our self-made questions make us analyze whether the text was informative or not, evaluation of the goals and what we learnt in the text helps us to judge the writer's ability to justify the topic and also the writing skills in terms of any gaps and inconsistencies detected. Its best use can be understood when reading and comprehending the text. To make us aware and cautious of using it and developing in us the skill of metacognition, we are asked and taught to self-analyze ourselves. I have come to realize that since we started reading and of course understanding the texts not only in English classes but also in all other subjects, we did use metacognitive approach. As when we don't understand something we always ask the teacher and also when making notes. When we make notes, we plan on what topics to cover, what questions to make and while making notes, we also come to realize what we understand and what we didn't understand. Our asking questions also indicates that we used monitoring and evaluation of what we understand or not. It's just that we were never told of these processes so our mind works automatically rather than thinking about every process before performing it. I think this automation is also the reason; we are taking time to adopt and understand metacognition as a process.

Comment [KB1]: Good insight!

Comment [KB2]: I did not discuss this in any of the lessons. This suggests that she has been reflecting on reading and metacognition.

Before attending the classes, my approach towards reading was very un-attentive and un-attractive in terms of academic reading. I didn't like newspapers and articles, only narration is what I read. I never thought that reading is a serious issue and a road to intelligence and understanding. I didn't know that prior knowledge exists. Also, I was un-aware that the use of prior knowledge plays a major role in understanding the writer, the context and in analyzing whether a text is true or not. I also realized that to deduce meanings of paragraphs, we also use our prior knowledge in terms of analyzing what is happening around us, or what we know has happened or occurred. We also use it while reading, not only before reading. I was not aware that when underlining facts and figures, I was actually putting by background or prior knowledge to use as before underlining any organization, place or a name, I was aware or had knowledge about it, that's how I came to know about the name, place or organization. When learning about reading, we came across strategies like underlining, skimming and scanning and skills to better reading. But after studying better comprehension skills and strategies like making questions, goals, slow- reading, back and forth processes and skills, I have actually come to realize that all is related to reading with understanding. And that reading and understanding goes hand in hand. If we don't ease the text's structure and focus on names and places and then don't deduce meaning and assumptions in relation to what we understood, then we cannot explore the text in its written context and this can only happen when taking reading and comprehension together. I guess, that's why we have monitoring in our metacognitive thinking process. So that we can actually analyze that what we understood and what we didn't and then we implement skills to make text easier to read as well as understand.

Appendix 9. Activities in data analysis process

The following are extracted from my memos as examples to illustrate the thinking behind the data coding processes.

Monitoring and reviewing codes	After coding the data from interviews, think aloud protocols and learners' diaries, I have moved on to monitor and review what I have coded. During the process of monitoring and reviewing my codes (what is called 'nodes' in Nvivo speak!) I am asking myself if something requires a new node or could be fitted into existing node. This led me to reallocate a few extracts to a new node. I am also making comparison across codes to be certain that the extracts do fit the assigned categories. Reviewing and monitoring the codes is making clearer in my head the relationship between different codes.
Establishing themes	I have started sorting codes into potential themes. It is actually exciting to see how different codes are combining to form a potential theme. Before doing this, I have been worrying about a large number of codes as I only had a vague idea where each code could go. During this process I sometimes feel as if I am a detective who is trying to build a pattern or a picture from the available clues. This makes my work appear more enjoyable to me! I am also noticing that the process of merging codes is taking more time than I had originally envisaged. However, I do not want to rush the process since I really want to be certain that the codes are related to the assigned theme. This way of working with my nodes is making me confident that I do have a 'story' to tell.
Reviewing and refining themes	Before moving further with my analysis process I am checking whether nodes with parent-child relationships are really related. In doing so, I have reread the extracts and have actually given a new title to some themes as that described the extracts more specifically. This makes me realize that I should visit the nodes with parent-child relationships at least once more to make sure that parent nodes are well defined and that children nodes fit within them. I am also now planning to go back to the literature that I read at the start of my PhD to see how all the emerging ideas in the areas of

	metacognitive awareness, strategy use and regulation have been categorized and discussed in it. I guess this will take some time as the literature in this area is immense.
Probing data (reflections)	It's very interesting to look closely at the data and see that teachers and researchers could indeed make use of research tools as pedagogic tools for promoting metacognition of reading strategies in students. I found that students liked writing the learners' diaries. Faizan, for example, mentioned that diary writing improved students' writing skills. He mentioned that 'all the students got handy with writing because in our school we were not (…) we were not allowed to write anything of our own but here we are actually allowed to do that so.' Speaking specifically about his own development of writing skills through diary entries he mentioned 'In the starting of the semester I had to think about the diary entry for a long time and I have to structure the text and then write it but now it's very comfortable and easy. I can write it anywhere and anytime whatever I want so diary entry actually (…) helped us to communicate and express whatever we feel because it was a free write kind of a free write we can write any of our comments and also about our writing skills.' Azeem also mentioned that prior to diary writing he used to think that he could not write in English. However, through diary writing he discovered that he could write. Reflecting on his writing process he said 'when I sat down to write then words started coming to mind and I kept on writing. When I used to write I used to speak too. Then I discovered that I am speaking good words easily and I was also understanding where to use which words.' The other two participating students have also mentioned benefits of diary writing.
Probing data (asking questions)	Is there any relationship between metacognition and affect? If yes, what is the relationship? Has anybody discussed this relationship before?

Appendix 10. Sample table of the collated codes from think aloud protocols: change in students' use of the reading strategies over time.

	TAP 1	TAP 2	TAP 3
Strategies used by Marium		Predicting	Prediction (3 times)
	Activating prior knowledge	Activating prior knowledge (4 times)	Activating prior knowledge (3 times)
	Guessing meaning from context	Guessing meaning from context	Guessing meaning from context
	Rereading	Rereading (2 times)	Rereading (4 times)
		Skimming	
			Agreeing with the text (9 times) Disagreed with the text

Appendix 11. Example of summarized codes (Rida's TAP)

In the first TA Rida activated the prior knowledge she had on the topic under discussion 3 times. 5 times during TA she monitored her comprehension. This is noticeable when she mentioned that she did not understand the meaning of a word. Rida tried at four instances to guess the meaning of the words she did not understand from the context. However, she did it successfully only once. Once she mentioned that she did not understand the meaning of a word. However, she made no attempt to understand it. Rida also reread a sentence once. In this TA Rida used 'rereading', 'guessing meaning from context' and 'activating prior knowledge' strategies. She showed no awareness of the strategies she used during TA.

In the second TA Rida made prediction about the content of the text by reading the title of the text. Just as in the first TA, in this TA as well Rida activated her prior knowledge on the subject. Rida also twice gave evidence of her comprehension monitoring when she shared that she did not understand the meaning of a sentence. At the end of her TA, Rida showed awareness of the reading strategies she had used during reading. However, she only mentioned that she had used 'rereading' and 'prediction' strategies. She did not mention that she had used activating prior knowledge strategy too during reading.

Just as in the 2nd TA, in the third TA Rida made prediction about the content of the text by reading the title of the text. As she read on, she also mentioned during this TA that her prediction was accurate: 'This paragraph tells about the merits and demerits, as I predict first. Then, how semester system can be useful for us.' She also discussed the main idea of the two paragraphs out of the three she had read. This was not something she did in her 1st or 2nd TA, probably because I did not introduce this strategy by then. At the end of her TA, she shared that when she read silently she skimmed and scanned the text and made predictions on the basis of that: 'The prediction that I made after reading the first sentence, I did scanning of words too at the same time'. She also shared that scanning helped her in making predictions and in selecting the main idea. At the end of TA she also accurately pointed out that she reread the first line of the third paragraph as she did not understand it the first time. The strategies that Rida used in this TA were: 'prediction', 'activating prior knowledge', 'rereading', 'main idea', 'scanning' and 'skimming'. To sum, in the 3rd TA as compared to the previous two TAs, Rida used more strategies as can be seen above. In addition, she was able to identify each strategy she had used at the end of TA. This suggests that she was aware of the reading process and also regulated it.

Appendix 12. Example of summarized themes (Interviews conducted at the end of Cycle 2)

The interviews at the end of Cycle 2 unfolded:

1) Growth in understanding and use of strategies:

It appeared from the interviews that all four students developed their knowledge base on reading strategies. Marium mentioned that she did not know 'about strategies and the use of strategies.' However, she felt that now she has learnt about the 'strategies and how to use them'. She also mentioned that she began liking reading after learning about strategies. She felt that she had 'started to understand things very well. I have also given two tests and they have made me notice that I have progressed.' Rida mentioned that 'we did not know at all that we could use reading strategies while reading. We learnt about them through these classes.' She further mentioned that prior to classes she made prediction and activated her prior knowledge occasionally but she did not know prediction is a reading strategies. She also did not know visualization and guessing meaning were reading strategies. Sarah mentioned that 'at first I did not know that strategy is used during reading.' She further added that 'then I learnt gradually about strategies. First I learnt about pre-reading strategies like activating prior knowledge, prediction. Then I learnt skimming, then scanning...I did not ever extract main idea. We just used to read and understood meaning and even if we did not understand we were given meaning.' She also said that 'we might have been using strategies but we did not know that this is strategy. Nobody even told us.' She therefore felt that she had never read like this before. She also felt that the way she had read had changed her a lot. Nida mentioned that she had learnt about strategies. She mentioned that prior to intervention she was not aware of the reading strategies. She felt that she used to use some of the strategies but was not aware why she used them. She also mentioned that she did not know what she was doing except that she was reading a text.

2) Reasons for students' motivated behavior and attitude:

Marium mentioned that 'I felt dull in English so I had to achieve, had to take good marks. And if I don't have to take good marks then I had to understand if I am understanding it or not'. She also mentioned that making students do hard work had also motivated them. Rida mentioned that she was not motivated earlier. However, she became motivated when she carried out motivating activities. She also mentioned that giving interviews also motivated her. Sarah felt motivated when her study buddies helped her in understanding the text. She mentioned that she was not motivated earlier since English was dealt as a subsidiary by previous teachers. However, she mentioned that her attitude changed during the semester and she became motivated to learn. Nida earlier felt that English was boring. However, when she learnt things in the classes she felt it to be interesting and she wanted to do it then.

3) Comments on teaching tools and processes:

a) Learning from peers:

In this interview Sarah commented that she took help from others whenever she found text difficult to read and understand. According to her this motivated her. On the other hand, Nida thought that working in pairs was good. She mentioned that through working in pairs she got an opportunity to build rapport with other students (‘Jaise class mein bohot saari larkion se hamari baat nahi hoti thi hamari unsay baat hui, link hui, hum jaise aik dosray ko nhi jaantay thei, different different partners aur couples k saath kaam kia bohot acha laga.’)

b) Diary writing:

Marium thought that diary writing was a difficult but very useful exercise. She felt that diary writing had helped her develop her skills. She also mentioned that in her diary she had discussed the stages she went through. For instance, at first she wrote what she thought reading is. Later she wrote what she thought reading is according to her growing understanding of it. She also mentioned that first she used to write a rough draft first on whatever she thought. Later she used to copy it in her diary. Nida mentioned that diary writing improved her writing skills. She said that at first she did not understand how to write and what to do, but later she slowly and gradually improved. She also said that she never wrote diary before but she very much liked diary writing during the term. What Nida liked about diary writing was that through it she used to share everything with the teacher. For instance, she mentioned ‘we used to discuss our point of views, our problems and how to overcome them, what weakness we have in ourselves and how to overcome them’ in the diary. Rida thought that through writing diaries she noted what she did in the class. This she mentioned helped her do the same thing in an effective manner next time. Through writing she felt she improved her writing power and her capacity to understand. She also mentioned that reading other students’ diaries helped her as it gave her an idea of ‘how they wrote? What did they focus more on? What were their strategies and their writing style?’.